

**DRAFT Air Individual Permit
Major Amendment
08500049-102**

Permittee: 3M - Hutchinson Tape Manufacturing Plant
Facility name: 3M - Hutchinson Tape Manufacturing Plant
915 Adams Street SE
Hutchinson, MN 55350
McLeod County

Operating permit issuance date: January 28, 2026

Expiration date: January 28, 2031

* All Title I Conditions do not expire

Major Amendment: [TBD]

Permit characteristics: Federal; Part 70/ Major for NSR; Limits to avoid NSR

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the submittals listed in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 08500049-101 and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Signature: ()

This document has been electronically signed.

for Steven S. Pak, P.E., Manager
Air Quality Permits Section
Industrial Division

for the Minnesota Pollution Control Agency

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1. Permit applications table

Title description	Application receipt date	Action number
Supplemental Information to Part 70 Reissuance	10/31/2024	08500049-101
Minor Amendment	10/14/2022	08500049-101
Minor Amendment	08/26/2020	08500049-101
Minor Amendment	11/26/2019	08500049-101
Notice of Replacement of Unit	06/26/2019	08500049-101
Minor Amendment	07/31/2014	08500049-101
Notice of Replacement of Controls	12/16/2013	08500049-101
Major Amendment	07/06/2012	08500049-101
Minor Amendment	12/01/2011	08500049-101
Part 70 Reissuance	10/13/2010	08500049-101
Minor Amendment	10/11/2010	08500049-101
Major Amendment	05/21/2009	08500049-101
MPCA initiated action	02/11/2026	08500049-102

2. Where to send submittals

Send submittals that are required to be submitted to the EPA regional office to:

Chief Air Enforcement
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by Minn. R. 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204M)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services – 6th Floor
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:

- a. Accumulated insignificant activities
- b. Installation of control equipment
- c. Replacement of an emissions unit, and
- d. Changes that contravene a permit term

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Or

Email a signed and scanned PDF copy to:
submitstacktest.pca@state.mn.us
(for submittals related to stack testing)
AQRoutineReport.PCA@state.mn.us
(for other compliance submittals)
(See complete email instructions in “Routine Air Report Instructions Letter” at
<https://www.pca.state.mn.us/sites/default/files/aq-f6-15.pdf>)

3. Facility description

The 3M - Hutchinson Tape Manufacturing Plant (Facility) is located at 905/915 Adams Street SE, Hutchinson, McLeod County, Minnesota.

3M Hutchinson (3M) manufactures pressure sensitive tape and other products. Operations include manufacture of adhesives and webs, coating the webs, drying the coated webs, molding product dispensers, and converting the coated webs into products. Emission units at the facility consist of coating stations, ovens, mixing equipment, and ovens for drying and curing. The pollutants of concern at the facility are volatile organic compounds (VOC), hazardous air pollutants (HAPs), particulate matter (PM), particulate matter less than 10 microns (PM10), and particulate matter less than 2.5 microns (PM2.5). PM, PM10, and PM2.5 control equipment at the facility includes fabric filters and venturi scrubbers. VOC and HAP control equipment at the facility includes thermal oxidizers and a solvent recovery unit.

This permit reopening is a mandatory reopening under Minn. R. 7007.1600, subp. 1(D). The permit is amended to update thermal oxidizer temperature limits for TREAs 6, 8, 12, 15, and 24.

4. Summary of subject items

SI ID: Description	Relationship type	Related SI ID: Description
TFAC 1: 3M - Hutchinson Tape Manufacturing Plant		
ACTV 3: All IA's		
COMG 3: Units Subject to Pre-1969 Industrial Process Equipment Rule	has members	EQUI 6, EQUI 7, EQUI 8, EQUI 9, EQUI 10, EQUI 12, EQUI 13, EQUI 21, EQUI 22, EQUI 25, EQUI 196, EQUI 198, EQUI 199, EQUI 200, EQUI 202, EQUI 203, EQUI 204, EQUI 205
COMG 4: 7L BACT Conditions and 40 CFR pt. 60, subp. RR	has members	EQUI 97, EQUI 98, EQUI 99
COMG 5: LT3 BACT Conditions	has members	EQUI 163, EQUI 164, EQUI 165, EQUI 166
COMG 8: 5L PSD Limits to avoid major modification, 5L SRU Requirements	has members	EQUI 14, EQUI 184, EQUI 188, TREA 11
COMG 9: 6L BACT Conditions, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF	has members	EQUI 15, EQUI 16, EQUI 17, EQUI 26, EQUI 112, TREA 15
COMG 11: Solvent Cleaning Tanks, PSD Limits to avoid a major modification	has members	EQUI 124, EQUI 125, EQUI 126
COMG 14: LM3 BACT Conditions	has members	EQUI 24, EQUI 27, EQUI 28, EQUI 29, EQUI 30, EQUI 31, EQUI 32
COMG 16: Enterprise Coater BACT Conditions and 40 CFR pt. 60, subp. RR	has members	EQUI 101, EQUI 102, EQUI 103, TREA 12
COMG 17: Voyager Coating Line BACT	has members	EQUI 46, EQUI 47, EQUI 48,

SI ID: Description	Relationship type	Related SI ID: Description
Conditions and 40 CFR pt. 60, subp. RR		EQUI 49, EQUI 50, EQUI 51, TREA 6
COMG 18: ST5 and ST6 BACT Conditions	has members	EQUI 33, EQUI 34, EQUI 35, EQUI 36, EQUI 38, EQUI 271, EQUI 272
COMG 20: 1L Coater Limits	has members	EQUI 196, EQUI 197, EQUI 198, EQUI 199, EQUI 200, EQUI 201
COMG 22: 22 Coater Limits	has members	EQUI 21, EQUI 22
COMG 25: 40 CFR pt. 63, subp. DDDDD	has members	EQUI 1, EQUI 2, EQUI 44
COMG 26: 40 CFR pt. 63, subp. JJJJ	has members	EQUI 14, EQUI 15, EQUI 16, EQUI 17, EQUI 21, EQUI 22, EQUI 24, EQUI 26, EQUI 27, EQUI 28, EQUI 29, EQUI 30, EQUI 31, EQUI 36, EQUI 38, EQUI 46, EQUI 47, EQUI 48, EQUI 49, EQUI 50, EQUI 51, EQUI 71, EQUI 92, EQUI 97, EQUI 98, EQUI 99, EQUI 101, EQUI 102, EQUI 103, EQUI 130, EQUI 131, EQUI 132, EQUI 133, EQUI 134, EQUI 135, EQUI 136, EQUI 137, EQUI 138, EQUI 139,

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SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 140, EQUI 141, EQUI 142, EQUI 143, EQUI 157, EQUI 158, EQUI 159, EQUI 160, EQUI 161, EQUI 162, EQUI 163, EQUI 164, EQUI 165, EQUI 166, EQUI 188, EQUI 196, EQUI 197, EQUI 198, EQUI 199, EQUI 200, EQUI 201, EQUI 202, EQUI 203, EQUI 204, EQUI 205, EQUI 208, EQUI 209, EQUI 211, EQUI 222, EQUI 241, EQUI 242, EQUI 243, EQUI 244, EQUI 245, EQUI 262, EQUI 269, EQUI 271, EQUI 272, EQUI 273, EQUI 281, EQUI 340
COMG 27: Units Subject to Post-1969 Industrial Process Equipment Rule	has members	EQUI 20, EQUI 23, EQUI 27, EQUI 28, EQUI 29, EQUI 31, EQUI 46, EQUI 47, EQUI 49, EQUI 50, EQUI 92, EQUI 101, EQUI 102, EQUI 105,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 112, EQUI 130, EQUI 132, EQUI 134, EQUI 136, EQUI 138, EQUI 140, EQUI 157, EQUI 159, EQUI 161, EQUI 163, EQUI 165, EQUI 188, EQUI 195, EQUI 241, EQUI 243, EQUI 245, EQUI 257, EQUI 258, EQUI 259, EQUI 260, EQUI 266, EQUI 271, EQUI 272, EQUI 273, EQUI 275, EQUI 276, EQUI 277, EQUI 278, EQUI 279, EQUI 280, EQUI 282, EQUI 283, EQUI 284, EQUI 285, EQUI 286, EQUI 287, EQUI 288, EQUI 289, EQUI 290, EQUI 291, EQUI 292, EQUI 293, EQUI 294, EQUI 295, EQUI 296, EQUI 297, EQUI 298, EQUI 299, EQUI 300, EQUI 301,

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SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 324, EQUI 326, EQUI 330
COMG 29: 8L BACT Conditions and 40 CFR pt. 60, subp. RR	has members	EQUI 157, EQUI 158, EQUI 159, EQUI 160, EQUI 161, EQUI 162
COMG 30: Direct Heating Equipment	has members	EQUI 14, EQUI 16, EQUI 24, EQUI 26, EQUI 30, EQUI 48, EQUI 51, EQUI 97, EQUI 98, EQUI 99, EQUI 103, EQUI 131, EQUI 133, EQUI 135, EQUI 137, EQUI 139, EQUI 141, EQUI 142, EQUI 143, EQUI 158, EQUI 160, EQUI 162, EQUI 164, EQUI 166, EQUI 197, EQUI 201, EQUI 269
COMG 31: 3L Limits to avoid major modification, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF	has members	EQUI 130, EQUI 131, EQUI 132, EQUI 133, EQUI 134, EQUI 135, EQUI 136, EQUI 137, EQUI 138, EQUI 139, EQUI 140, EQUI 141, EQUI 142, EQUI 143, TREA 8
COMG 33: 7L, 8L, and LT3 combined BACT limit	has members	EQUI 97, EQUI 98, EQUI 99, EQUI 157, EQUI 158,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 159, EQUI 160, EQUI 161, EQUI 162, EQUI 163, EQUI 164, EQUI 165, EQUI 166
COMG 34: 27 Coater Limit to avoid major modification and 40 CFR pt. 60, subp. RR	has members	EQUI 202, EQUI 203
COMG 35: 28 Coater Limit to avoid major modification	has members	EQUI 204, EQUI 205
COMG 37: 26 Coater Limits	has members	EQUI 208, EQUI 209
COMG 38: 40 CFR pt. 63, subp. ZZZZ, Existing Emergency Compression Ignition Stationary Engine less than or equal to 500 HP	has members	EQUI 235, EQUI 238, EQUI 239
COMG 39: 40 CFR pt. 63, subp. ZZZZ, Existing Spark Ignition Stationary Engines <100 HP	has members	EQUI 233, EQUI 234, EQUI 236, EQUI 237
COMG 40: 40 CFR pt. 63, subp. FFFF and subp. UU requirements	has members	EQUI 213, EQUI 252, EQUI 253
COMG 41: 40 CFR pt. 63, subp. EEEE	has members	EQUI 210, EQUI 213, EQUI 214, EQUI 215, EQUI 216, EQUI 217, EQUI 218, EQUI 251, EQUI 252, EQUI 253, EQUI 254, EQUI 255, EQUI 342, EQUI 343, EQUI 344, EQUI 345
COMG 42: 40 CFR pt.	has members	EQUI 219,

SI ID: Description	Relationship type	Related SI ID: Description
63, subp. KK		EQUI 223, EQUI 270, EQUI 339
COMG 43: ST5 Coating Line, 40 CFR pt. 60, subp. RR	has members	EQUI 38, EQUI 271
COMG 44: ST6 Coating Line, 40 CFR pt. 60, subp. RR	has members	EQUI 36, EQUI 272
COMG 45: ST7 Coating Line, 40 CFR pt. 60, subp. RR	has members	EQUI 71, EQUI 72, EQUI 273
COMG 46: H1, 40 CFR pt. 60, subp. RR	has members	EQUI 23, EQUI 92, EQUI 222
COMG 47: Flexographic Printing, 40 CFR pt. 60, subp. RR	has members	EQUI 224, EQUI 225, EQUI 226, EQUI 227, EQUI 228, EQUI 229
COMG 48: APF1, 40 CFR pt. 60, subp. VVV	has members	EQUI 242, EQUI 243
COMG 49: APF2, 40 CFR pt. 60, subp. VVV	has members	EQUI 244, EQUI 245
EQUI 1: Boiler 3	sends to	STRU 246: Boiler 3
EQUI 2: Boiler 4	sends to	STRU 245: Boiler 4
EQUI 6: 1N Churn	sends to	STRU 217: Compounding Room 1 - Churns and Blenders
EQUI 7: 1N Mixer	sends to	STRU 217: Compounding Room 1 - Churns and Blenders
EQUI 8: 1S Churn	sends to	STRU 217: Compounding Room 1 - Churns and Blenders
EQUI 9: 1S Mixer	sends to	STRU 217: Compounding Room 1 - Churns and Blenders
EQUI 10: 3W Blender	is monitored by	EQUI 268: Condenser's

SI ID: Description	Relationship type	Related SI ID: Description
		(TREA 22) ethylene glycol chiller return resistance temp detector (RTD)
EQUI 10: 3W Blender	sends to	STRU 219: Compounding Room 3 - Blender
EQUI 10: 3W Blender	is controlled by	TREA 22: Condenser
EQUI 12: 2W Blender	sends to	STRU 218: Compounding Room 2 - Blenders
EQUI 13: Mogul 1	sends to	STRU 214: Mogul 1 Articulated Vent
EQUI 13: Mogul 1	sends to	STRU 215: Mogul 1 Hood
EQUI 13: Mogul 1	sends to	STRU 216: Mogul 1 Vent
EQUI 14: 5L Coating Oven	sends to	STRU 228: 5L Coating Oven Bypass 3
EQUI 14: 5L Coating Oven	sends to	STRU 230: 5L Coating Oven Bypass 2
EQUI 14: 5L Coating Oven	sends to	STRU 232: 5L Coating Oven Bypass 1
EQUI 14: 5L Coating Oven	sends to	STRU 237: 5L SRU Stripper
EQUI 14: 5L Coating Oven	is controlled by	TREA 11: 5L Solvent Recovery Unit
EQUI 15: 6L Precoating Station 1	sends to	STRU 242: 6L Thermal Oxidizer
EQUI 15: 6L Precoating Station 1	sends to	STRU 243: 6L Precoating Stations 1&2 Bypass
EQUI 15: 6L Precoating Station 1	is controlled by	TREA 15: 6L Thermal Oxidizer
EQUI 16: 6L Precoating 1 Oven	sends to	STRU 242: 6L Thermal

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SI ID: Description	Relationship type	Related SI ID: Description
		Oxidizer
EQUI 16: 6L Precoating 1 Oven	is controlled by	TREA 15: 6L Thermal Oxidizer
EQUI 17: 6L Precoating Station 2	sends to	STRU 242: 6L Thermal Oxidizer
EQUI 17: 6L Precoating Station 2	sends to	STRU 243: 6L Precoating Stations 1&2 Bypass
EQUI 17: 6L Precoating Station 2	is controlled by	TREA 15: 6L Thermal Oxidizer
EQUI 20: Mogul 2	sends to	STRU 211: Mogul 2 Articulated Vent
EQUI 20: Mogul 2	sends to	STRU 212: Mogul 2 Hood
EQUI 20: Mogul 2	sends to	STRU 213: Mogul 2 Vent
EQUI 21: 22 Oven	sends to	STRU 376: 22 Coater Oven
EQUI 22: 22 Coating Station	sends to	STRU 67: 22 Coating Station
EQUI 23: H1 Extruder 3	sends to	STRU 299: H1 Extrusion
EQUI 24: LM3 Drying Oven 1A	sends to	STRU 248: LM3 Drying Oven 1A Bypass
EQUI 24: LM3 Drying Oven 1A	sends to	STRU 253: LM3 Thermal Oxidizer
EQUI 25: 2E Blender	sends to	STRU 218: Compounding Room 2 - Blenders
EQUI 26: 6L Precoating 2 Oven	sends to	STRU 242: 6L Thermal Oxidizer
EQUI 26: 6L Precoating 2 Oven	is controlled by	TREA 15: 6L Thermal Oxidizer
EQUI 27: LM3 Coating Station 1	sends to	STRU 247: LM3 Coating Station 1 Bypass
EQUI 27: LM3 Coating	sends to	STRU 253: LM3

SI ID: Description	Relationship type	Related SI ID: Description
Station 1		Thermal Oxidizer
EQUI 28: LM3 Curing Chamber 1	sends to	STRU 249: LM3 Oven 1B Bypass
EQUI 28: LM3 Curing Chamber 1	sends to	STRU 253: LM3 Thermal Oxidizer
EQUI 29: LM3 Coating Station 2	sends to	STRU 250: LM3 Coating Station 2 Bypass
EQUI 29: LM3 Coating Station 2	sends to	STRU 253: LM3 Thermal Oxidizer
EQUI 30: LM3 Drying Oven 2A	sends to	STRU 251: LM3 Drying Oven 2A Bypass
EQUI 30: LM3 Drying Oven 2A	sends to	STRU 253: LM3 Thermal Oxidizer
EQUI 31: LM3 Curing Chamber 2	sends to	STRU 252: LM3 Oven 2B Bypass
EQUI 31: LM3 Curing Chamber 2	sends to	STRU 253: LM3 Thermal Oxidizer
EQUI 32: LM3 Cleaning	sends to	STRU 495: LM3 Cleaning
EQUI 33: ST6 Compounding Area A	sends to	STRU 496: ST6/ST7 Compounding A
EQUI 34: ST6 Compounding Area B	sends to	STRU 497: ST6/ST7 Compounding B
EQUI 35: ST6 Cleaning	sends to	STRU 498: ST6 Cleaning Exhaust
EQUI 36: ST6 Coating Station	sends to	STRU 491: ST6 Coating Oven Exhaust 1
EQUI 38: ST5 Coating Station & Equipment Leaks	sends to	STRU 489: ST5 Coating Station
EQUI 44: Boiler 5	sends to	STRU 244: Boiler 5
EQUI 46: Voyager Coating Station 1	sends to	STRU 362: Voyager

SI ID: Description	Relationship type	Related SI ID: Description
		Thermal Oxidizer
EQUI 46: Voyager Coating Station 1	sends to	STRU 363: Voyager Coating Station 1 Bypass
EQUI 46: Voyager Coating Station 1	is controlled by	TREA 6: Voyager Thermal Oxidizer
EQUI 47: Voyager Oven 1	sends to	STRU 362: Voyager Thermal Oxidizer
EQUI 47: Voyager Oven 1	sends to	STRU 364: Voyager Oven 1 Bypass
EQUI 47: Voyager Oven 1	is controlled by	TREA 6: Voyager Thermal Oxidizer
EQUI 48: Voyager Oven 2	sends to	STRU 362: Voyager Thermal Oxidizer
EQUI 48: Voyager Oven 2	sends to	STRU 365: Voyager Oven 2 Bypass 1
EQUI 48: Voyager Oven 2	sends to	STRU 366: Voyager Oven 2 Bypass 2
EQUI 48: Voyager Oven 2	sends to	STRU 367: Voyager Oven 2 Bypass 3
EQUI 48: Voyager Oven 2	is controlled by	TREA 6: Voyager Thermal Oxidizer
EQUI 49: Voyager Coating Station 2	sends to	STRU 362: Voyager Thermal

SI ID: Description	Relationship type	Related SI ID: Description
		Oxidizer
EQUI 49: Voyager Coating Station 2	sends to	STRU 368: Voyager Coating Station 2 Bypass
EQUI 49: Voyager Coating Station 2	is controlled by	TREA 6: Voyager Thermal Oxidizer
EQUI 50: Voyager Oven 3	sends to	STRU 362: Voyager Thermal Oxidizer
EQUI 50: Voyager Oven 3	sends to	STRU 369: Voyager Oven 3 Bypass
EQUI 50: Voyager Oven 3	is controlled by	TREA 6: Voyager Thermal Oxidizer
EQUI 51: Voyager Oven 4	sends to	STRU 362: Voyager Thermal Oxidizer
EQUI 51: Voyager Oven 4	sends to	STRU 370: Voyager Oven 4 Bypass 1
EQUI 51: Voyager Oven 4	sends to	STRU 371: Voyager Oven 4 Bypass 2
EQUI 51: Voyager Oven 4	sends to	STRU 372: Voyager Oven 4 Bypass 3
EQUI 51: Voyager Oven 4	is controlled by	TREA 6: Voyager Thermal Oxidizer
EQUI 71: ST7 Coating Station	sends to	STRU 494: ST7 Coating Station Exhaust

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 72: ST7 Curing Chamber		
EQUI 92: H1 Coating Station	sends to	STRU 298: H1 Coating Station
EQUI 97: 7L Precoating Station/Oven 1	sends to	STRU 310: 7L Precoating Station/Oven 1
EQUI 98: 7L Precoating Station/Oven 3	sends to	STRU 311: 7L Precoating Station/Oven 3
EQUI 99: 7L Coating Station/Oven	sends to	STRU 1: 7L Coating Station/Oven Exhaust 4
EQUI 99: 7L Coating Station/Oven	sends to	STRU 2: 7L Coating Station/Oven Exhaust 5
EQUI 99: 7L Coating Station/Oven	sends to	STRU 3: 7L Coating Station/Oven Exhaust 6
EQUI 99: 7L Coating Station/Oven	sends to	STRU 312: 7L Coating Station/Oven Exhaust 1
EQUI 99: 7L Coating Station/Oven	sends to	STRU 313: 7L Coating Station/Oven Exhaust 2
EQUI 99: 7L Coating Station/Oven	sends to	STRU 314: 7L Coating Station/Oven Exhaust 3
EQUI 101: Enterprise Coating Station	sends to	STRU 27: Enterprise Coating Station Bypass
EQUI 101: Enterprise Coating Station	sends to	STRU 32: Enterprise Thermal Oxidizer
EQUI 101: Enterprise Coating Station	is controlled by	TREA 12: Enterprise Thermal Oxidizer
EQUI 102: Enterprise Oven 1	sends to	STRU 28: Enterprise Oven 1 Bypass

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 102: Enterprise Oven 1	sends to	STRU 32: Enterprise Thermal Oxidizer
EQUI 102: Enterprise Oven 1	is controlled by	TREA 12: Enterprise Thermal Oxidizer
EQUI 103: Enterprise Oven 2	sends to	STRU 29: Enterprise Oven 2 Bypass 1
EQUI 103: Enterprise Oven 2	sends to	STRU 30: Enterprise Oven 2 Bypass 2
EQUI 103: Enterprise Oven 2	sends to	STRU 32: Enterprise Thermal Oxidizer
EQUI 103: Enterprise Oven 2	is controlled by	TREA 12: Enterprise Thermal Oxidizer
EQUI 105: 19J Extruder	sends to	STRU 33: 19J Extruder Venturi Scrubber
EQUI 105: 19J Extruder	is controlled by	TREA 13: 19J Venturi Scrubber
EQUI 112: 6L Coating Station/Oven	sends to	STRU 292: 6L Coating Oven Exhaust 1
EQUI 112: 6L Coating Station/Oven	sends to	STRU 293: 6L Coating Oven Exhaust 2
EQUI 112: 6L Coating Station/Oven	sends to	STRU 294: 6L Coating Oven Exhaust 3
EQUI 112: 6L Coating Station/Oven	sends to	STRU 295: 6L Coating Oven Exhaust 4
EQUI 112: 6L Coating Station/Oven	sends to	STRU 296: 6L Coating Oven Exhaust 5
EQUI 112: 6L Coating Station/Oven	sends to	STRU 297: 6L Coating Oven Exhaust 6
EQUI 124: Cleaning	sends to	STRU 220:

SI ID: Description	Relationship type	Related SI ID: Description
Tank 1		Compounding Room 4 - Cleaning Tanks
EQUI 125: Cleaning Tank 2	sends to	STRU 220: Compounding Room 4 - Cleaning Tanks
EQUI 126: Cleaning Tank 3	sends to	STRU 220: Compounding Room 4 - Cleaning Tanks
EQUI 130: 3L Coating Station 1	sends to	STRU 20: 3L Coating Station 1 Bypass
EQUI 130: 3L Coating Station 1	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 130: 3L Coating Station 1	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 131: 3L Oven 1	sends to	STRU 12: 3L Oven 1 Bypass
EQUI 131: 3L Oven 1	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 131: 3L Oven 1	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 132: 3L Coating Station 2	sends to	STRU 21: 3L Coating Station 2 Bypass
EQUI 132: 3L Coating Station 2	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 132: 3L Coating Station 2	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 133: 3L Oven 2	sends to	STRU 13: 3L Oven 2 Bypass
EQUI 133: 3L Oven 2	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 133: 3L Oven 2	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 134: 3L Coating Station 3	sends to	STRU 22: 3L Coating Station 3

SI ID: Description	Relationship type	Related SI ID: Description
		Bypass
EQUI 134: 3L Coating Station 3	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 134: 3L Coating Station 3	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 135: 3L Oven 3	sends to	STRU 14: 3L Oven 3 Bypass
EQUI 135: 3L Oven 3	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 135: 3L Oven 3	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 136: 3L Coating Station 4	sends to	STRU 23: 3L Coating Station 4 Bypass
EQUI 136: 3L Coating Station 4	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 136: 3L Coating Station 4	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 137: 3L Oven 4	sends to	STRU 15: 3L Oven 4 Bypass
EQUI 137: 3L Oven 4	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 137: 3L Oven 4	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 138: 3L Coating Station 5	sends to	STRU 24: 3L Coating Station 5 Bypass
EQUI 138: 3L Coating Station 5	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 138: 3L Coating Station 5	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 139: 3L Oven 5	sends to	STRU 16: 3L Oven 5 Bypass
EQUI 139: 3L Oven 5	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 139: 3L Oven 5	is controlled by	TREA 8: 1L/3L Thermal

SI ID: Description	Relationship type	Related SI ID: Description
		Oxidizer
EQUI 140: 3L Coating Station 6	sends to	STRU 25: 3L Coating Station 6 Bypass
EQUI 140: 3L Coating Station 6	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 140: 3L Coating Station 6	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 141: 3L Oven 6 Zone 1	sends to	STRU 17: 3L Oven 6 Zone 1 Bypass
EQUI 141: 3L Oven 6 Zone 1	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 141: 3L Oven 6 Zone 1	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 142: 3L Oven 6 Zone 2	sends to	STRU 18: 3L Oven 6 Zone 2 Bypass
EQUI 142: 3L Oven 6 Zone 2	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 142: 3L Oven 6 Zone 2	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 143: 3L Oven 6 Zone 3	sends to	STRU 19: 3L Oven 6 Zone 3 Bypass
EQUI 143: 3L Oven 6 Zone 3	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 143: 3L Oven 6 Zone 3	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 157: 8L Precoating Station 1	sends to	STRU 57: 8L Precoating 1 Oven
EQUI 158: 8L Precoating 1 Oven	sends to	STRU 57: 8L Precoating 1 Oven
EQUI 159: 8L Precoating Station 2	sends to	STRU 58: 8L Precoating 2 Oven
EQUI 160: 8L Precoating 2 Oven	sends to	STRU 58: 8L Precoating 2 Oven

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 161: 8L Coating Station	sends to	STRU 59: 8L Coating Oven Exhaust 1
EQUI 161: 8L Coating Station	sends to	STRU 60: 8L Coating Oven Exhaust 2
EQUI 161: 8L Coating Station	sends to	STRU 61: 8L Coating Oven Exhaust 3
EQUI 161: 8L Coating Station	sends to	STRU 62: 8L Coating Oven Exhaust 4
EQUI 161: 8L Coating Station	sends to	STRU 63: 8L Coating Oven Exhaust 5
EQUI 161: 8L Coating Station	sends to	STRU 64: 8L Coating Oven Exhaust 6
EQUI 162: 8L Coating Oven	sends to	STRU 59: 8L Coating Oven Exhaust 1
EQUI 162: 8L Coating Oven	sends to	STRU 60: 8L Coating Oven Exhaust 2
EQUI 162: 8L Coating Oven	sends to	STRU 61: 8L Coating Oven Exhaust 3
EQUI 162: 8L Coating Oven	sends to	STRU 62: 8L Coating Oven Exhaust 4
EQUI 162: 8L Coating Oven	sends to	STRU 63: 8L Coating Oven Exhaust 5
EQUI 162: 8L Coating Oven	sends to	STRU 64: 8L Coating Oven Exhaust 6
EQUI 163: LT3 Saturator	sends to	STRU 51: LT3 Saturant Oven Exhaust 1
EQUI 163: LT3 Saturator	sends to	STRU 52: LT3 Saturant Oven Exhaust 2
EQUI 163: LT3 Saturator	sends to	STRU 53: LT3 Saturant Oven Exhaust 3
EQUI 164: LT3 Saturant Oven	sends to	STRU 51: LT3 Saturant Oven

SI ID: Description	Relationship type	Related SI ID: Description
		Exhaust 1
EQUI 164: LT3 Saturant Oven	sends to	STRU 52: LT3 Saturant Oven Exhaust 2
EQUI 164: LT3 Saturant Oven	sends to	STRU 53: LT3 Saturant Oven Exhaust 3
EQUI 165: LT3 Coating Station	sends to	STRU 54: LT3 Coating Oven Exhaust 1
EQUI 165: LT3 Coating Station	sends to	STRU 55: LT3 Coating Oven Exhaust 2
EQUI 166: LT3 Coating Oven	sends to	STRU 54: LT3 Coating Oven Exhaust 1
EQUI 166: LT3 Coating Oven	sends to	STRU 55: LT3 Coating Oven Exhaust 2
EQUI 184: 5L SRU Stripper	sends to	STRU 237: 5L SRU Stripper
EQUI 188: 5L Coating Station	sends to	STRU 231: 5L Coating Station Bypass 1
EQUI 188: 5L Coating Station	sends to	STRU 237: 5L SRU Stripper
EQUI 188: 5L Coating Station	sends to	STRU 238: 5L Coating Station Bypass 2
EQUI 188: 5L Coating Station	sends to	STRU 239: 5L Coating Station Bypass 3
EQUI 188: 5L Coating Station	is controlled by	TREA 11: 5L Solvent Recovery Unit
EQUI 195: 10J Extruder	sends to	STRU 234: 10J Venturi Scrubber
EQUI 195: 10J Extruder	is controlled by	TREA 10: 10J Venturi

SI ID: Description	Relationship type	Related SI ID: Description
		Scrubber
EQUI 196: 1L Precoating Station 1	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 196: 1L Precoating Station 1	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 197: 1L Precoating 1 Oven	sends to	STRU 221: 1L Precoating Oven 1 Bypass
EQUI 197: 1L Precoating 1 Oven	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 197: 1L Precoating 1 Oven	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 198: 1L Precoating Station 2	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 198: 1L Precoating Station 2	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 199: 1L Precoating 2 Oven	sends to	STRU 222: 1L Precoating 2 Oven Bypass
EQUI 199: 1L Precoating 2 Oven	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 199: 1L Precoating 2 Oven	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 200: 1L Coating Station	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 200: 1L Coating Station	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 201: 1L Coating Oven	sends to	STRU 224: 1L Coating Oven Bypass 1
EQUI 201: 1L Coating Oven	sends to	STRU 225: 1L Coating Oven Bypass 2
EQUI 201: 1L Coating Oven	sends to	STRU 315: 1L/3L Thermal Oxidizer
EQUI 201: 1L Coating Oven	is controlled by	TREA 8: 1L/3L Thermal Oxidizer
EQUI 202: 27 Oven	sends to	STRU 146: 27

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SI ID: Description	Relationship type	Related SI ID: Description
		Coater Oven Bypass
EQUI 202: 27 Oven	sends to	STRU 374: 26 Thermal Oxidizer
EQUI 202: 27 Oven	is controlled by	TREA 24: 26/27 Thermal Oxidizer
EQUI 203: 27 Coating Station	sends to	STRU 154: 27 Coating Station
EQUI 203: 27 Coating Station	sends to	STRU 374: 26 Thermal Oxidizer
EQUI 203: 27 Coating Station	is controlled by	TREA 24: 26/27 Thermal Oxidizer
EQUI 204: 28 Oven	sends to	STRU 147: 28 Coater Oven
EQUI 205: 28 Coating Station	sends to	STRU 155: 28 Coating Station
EQUI 208: 26 Oven	sends to	STRU 145: 26 Oven Bypass
EQUI 208: 26 Oven	sends to	STRU 374: 26 Thermal Oxidizer
EQUI 208: 26 Oven	is controlled by	TREA 24: 26/27 Thermal Oxidizer
EQUI 209: 26 Coating Station	sends to	STRU 153: 26 Coating Station Bypass
EQUI 209: 26 Coating Station	sends to	STRU 374: 26 Thermal Oxidizer
EQUI 209: 26 Coating Station	is controlled by	TREA 24: 26/27 Thermal Oxidizer
EQUI 210: 38-A-144	sends to	STRU 420: Solvent Tank 44
EQUI 211: 5L Precoating Station	sends to	STRU 231: 5L Coating Station Bypass 1
EQUI 213: 14T-A-22 Acrylic Acid Bulk Storage and Equipment Leaks	sends to	STRU 414: Acrylic Acid Bulk Storage Exhaust

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 214: 25-RM-210 Tank 2 and Toluene Blending Equipment Leaks	sends to	STRU 415: South Tank 2 Exhaust
EQUI 215: 25-RM-6750 Tank 4	sends to	STRU 416: South Tank 4 Exhaust
EQUI 216: 25-RM-5178 Tank 5	sends to	STRU 417: South Tank 5 Exhaust
EQUI 217: 25-RM-5178 Tank 6	sends to	STRU 418: South Tank 6 Exhaust
EQUI 218: 25-RM-5178 Tank 13	sends to	STRU 419: South Tank 13 Exhaust
EQUI 219: Masking Systems Line 1	sends to	STRU 394: Masking Systems Line 1 and 2 Stack
EQUI 222: H1 Oven	sends to	STRU 49: H1 Curing Chamber
EQUI 223: Masking Systems Line 2	sends to	STRU 394: Masking Systems Line 1 and 2 Stack
EQUI 224: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 1	sends to	STRU 397: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 1 Stack
EQUI 225: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 2	sends to	STRU 398: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 2 Stack
EQUI 226: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 3	sends to	STRU 399: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 3 Stack
EQUI 227: Excalibur Ink Printer/LAB Coater &	sends to	STRU 400: Excalibur Ink

SI ID: Description	Relationship type	Related SI ID: Description
Electric Dryer Station 4		Printer/LAB Coater & Electric Dryer Station 4 Stack
EQUI 228: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 5	sends to	STRU 401: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 5 Stack
EQUI 229: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 6	sends to	STRU 402: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 6 Stack
EQUI 230: GEN-35	sends to	STRU 379: GEN-35 Stack
EQUI 232: GEN-KOHLER	sends to	STRU 381: GEN-KOHLER Stack
EQUI 233: GEN-31	sends to	STRU 382: GEN-31 Stack
EQUI 234: GEN-33	sends to	STRU 383: GEN-33 Stack
EQUI 235: GEN-15	sends to	STRU 384: GEN-15 Stack
EQUI 236: GEN-16	sends to	STRU 385: GEN-16 Stack
EQUI 237: GEN-32	sends to	STRU 386: GEN-32 Stack
EQUI 238: Fire Pump 1	sends to	STRU 387: Fire Pump 1 Stack
EQUI 239: Fire Pump 2	sends to	STRU 388: Fire Pump 2 Stack
EQUI 241: Print Station 4 (SFS109)	sends to	STRU 425: SFS109
EQUI 242: APF1 Coating Applicator 1	sends to	STRU 389: APF1 Coating Applicator 1 Stack
EQUI 243: APF1 Coating Applicator 2	sends to	STRU 390: APF1 Coating Applicator 2 Stack
EQUI 244: APF2 Coating Applicator 1	sends to	STRU 391: APF2 Coating Applicator 1 Stack
EQUI 245: APF2	sends to	STRU 392:

SI ID: Description	Relationship type	Related SI ID: Description
Coating Applicator 2		APF2 Coating Applicator 2 Stack
EQUI 251: Voyager Compounding Room Transfer Rack & Equipment Leaks	sends to	STRU 408: Voyager Compounding Room Transfer Rack Stack
EQUI 252: 22-28 Compounding Transfer Rack 1	sends to	STRU 409: 22-28 Compounding Transfer Rack 1 Stack
EQUI 253: 22-28 Compounding Transfer Rack 2	sends to	STRU 410: 22-28 Compounding Transfer Rack 2 Stack
EQUI 254: Compounding Room 1 Transfer Rack	sends to	STRU 411: Compounding Room 1 Transfer Rack Stack
EQUI 255: Compounding Room 4 Transfer Rack	sends to	STRU 412: Compounding Room 4 Transfer Rack Stack
EQUI 256: GEN-14	sends to	STRU 424: GEN-14 (NG, 469 HP)
EQUI 257: 14Q-A-42	sends to	STRU 197: Tank 42
EQUI 258: 38-A-147	sends to	STRU 194: Solvent Tank 47
EQUI 259: 25-RM-2119	sends to	STRU 421: South Tank 1 Exhaust
EQUI 260: 25-RM-55	sends to	STRU 422: South Tank 3 Exhaust
EQUI 262: LT3 Printer Oven	sends to	STRU 423: LT3 Printer Oven Stack
EQUI 266: 3L Corona Treater	sends to	STRU 487: 3L Corona Treater Exhaust
EQUI 267: Condenser's (TREA 22) ethylene	receives from	EQUI 268: Condenser's

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SI ID: Description	Relationship type	Related SI ID: Description
glycol chiller return RTD data acquisition system		(TREA 22) ethylene glycol chiller return resistance temp detector (RTD)
EQUI 268: Condenser's (TREA 22) ethylene glycol chiller return resistance temp detector (RTD)		
EQUI 269: 5L Primer Oven	sends to	STRU 486: 5L Primer Oven
EQUI 270: Masking Systems Line 1 Oven	sends to	STRU 394: Masking Systems Line 1 and 2 Stack
EQUI 271: ST5 Oven	sends to	STRU 490: ST5 Oven
EQUI 272: ST6 Oven	sends to	STRU 435: ST6 Oven Exhaust 1
EQUI 272: ST6 Oven	sends to	STRU 436: ST6 Oven Exhaust 2
EQUI 272: ST6 Oven	sends to	STRU 437: ST6 Oven Exhaust 3
EQUI 272: ST6 Oven	sends to	STRU 438: ST6 Oven Exhaust 4
EQUI 273: ST7 Oven	sends to	STRU 439: ST7 Oven Exhaust 1
EQUI 273: ST7 Oven	sends to	STRU 440: ST7 Oven Exhaust 2
EQUI 273: ST7 Oven	sends to	STRU 441: ST7 Oven Exhaust 3
EQUI 273: ST7 Oven	sends to	STRU 442: ST7 Oven Exhaust 4
EQUI 274: North Plant Emergency Generator	sends to	STRU 413: North Plant Emergency Generator Stack
EQUI 275: LM3 Corona Treater	sends to	STRU 485: LM3 Corona Treater

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 276: 27 Corona Treater	sends to	STRU 429: 27 Corona Treater
EQUI 277: 5L Corona Treater	sends to	STRU 460: 5L Corona Treater
EQUI 278: 9J Corona Treater	sends to	STRU 430: 9J Corona Treater
EQUI 279: ST7 Corona Treater	sends to	STRU 431: ST7 Corona Treater
EQUI 280: 16J Corona Treater	sends to	STRU 432: 16J Corona Treater
EQUI 281: Print Station 1 (SFS109)	sends to	STRU 425: SFS109
EQUI 282: APF1 Printer	sends to	STRU 426: APF1 Printer
EQUI 283: APF2 Printer	sends to	STRU 427: APF2 Printer
EQUI 284: 4Y Extruder	sends to	STRU 428: 4Y Extruder
EQUI 285: VersaDrum Unloader Install	sends to	STRU 299: H1 Extrusion
EQUI 286: N72 Drum Mix Station	sends to	STRU 433: Microabrasives Compounding
EQUI 287: N69 Mill	sends to	STRU 433: Microabrasives Compounding
EQUI 288: N70 Basket Mill	sends to	STRU 433: Microabrasives Compounding
EQUI 289: N71 Drum Mix Station	sends to	STRU 433: Microabrasives Compounding
EQUI 290: Haz Waste Transfer Rack	sends to	STRU 434: HazWaste Transfer Rack
EQUI 291: 22 Coater Solution Delivery Wash Tank	sends to	STRU 447: 22 Coater Solution Delivery Wash Tank
EQUI 292: Voyager Solution Delivery 1 Wash Tank	sends to	STRU 292: 6L Coating Oven Exhaust 1
EQUI 293: Voyager Solution Delivery 2 Wash Tank	sends to	STRU 408: Voyager Compounding Room Transfer Rack Stack
EQUI 294: 3L Coater Wash Tank	sends to	STRU 448: 3L Coater Wash

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SI ID: Description	Relationship type	Related SI ID: Description
		Tank
EQUI 295: Bldg. 20 Compounding Wash Tank 1 (South) Wash Tank	sends to	STRU 449: Bldg. 20 Compounding Wash Tanks
EQUI 296: Bldg. 20 Compounding Wash Tank 2 (South) Wash Tank	sends to	STRU 449: Bldg. 20 Compounding Wash Tanks
EQUI 297: Bldg. 20 Compounding Wash Tank 3 (South) Wash Tank	sends to	STRU 449: Bldg. 20 Compounding Wash Tanks
EQUI 298: 52-B-1 Barrier	sends to	STRU 450: Tank 52 Barrier 1 (52-B-1) Exhaust
EQUI 299: 52-P-1 Primer	sends to	STRU 451: Tank 52 Primer 1 (52-P-1) Exhaust
EQUI 300: 52-S-1 Saturant	sends to	STRU 452: Tank 52 Saturant 1 (52- S-1) Exhaust
EQUI 301: 52-S-2 Saturant	sends to	STRU 453: Tank 52 Saturant 2 (52- S-2) Exhaust
EQUI 324: NCC Compounding Tunnel Wash Tank and Equipment Leaks	sends to	STRU 444: NCC Compounding Tunnel Wash Tank and Equipment Leaks Stack
EQUI 326: NCC Compounding 2nd Floor Wash Tank and Equipment Leaks	sends to	STRU 443: NCC Compounding 2nd Floor Wash Tank and Equipment Leaks Stack
EQUI 330: Enterprise	sends to	STRU 445:

SI ID: Description	Relationship type	Related SI ID: Description
Solution Delivery Wash Tank and Equipment Leaks		Enterprise Solution Delivery Wash Tank and Equipment Leaks Stack
EQUI 339: Masking Systems Line 2 Oven	sends to	STRU 394: Masking Systems Line 1 and 2 Stack
EQUI 340: LT3 Printer	sends to	STRU 423: LT3 Printer Oven Stack
EQUI 341: North Tank (38-A-21/149)		
EQUI 342: Transfer Rack for Tank Trucks: Acrylic Acid Tank Loading (outside)		
EQUI 343: Transfer Rack for Tank Trucks: North Tank Farm		
EQUI 344: Transfer Rack for Tank Trucks: Bldg 25 - Bay 1		
EQUI 345: Transfer Rack for Tank Trucks: Bldg 25 - Bay 2		
FUGI 9: Cooling Tower 19-CT-01		
FUGI 10: Cooling Tower 19-CT-02		
FUGI 11: Cooling Tower 19-CT-03		
FUGI 12: Cooling Tower 14-CT-01F		
FUGI 13: Cooling Tower 14-CT-02F		
FUGI 14: Cooling Tower 14-CT-01B		
FUGI 15: Cooling Tower 14-CT-02B		
FUGI 16: Cooling		

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SI ID: Description	Relationship type	Related SI ID: Description
Tower 26-CT-01		
FUGI 17: Cooling Tower 14-CT-01H		
FUGI 18: Cooling Tower 14-CT-01P		
STRU 1: 7L Coating Station/Oven Exhaust 4		
STRU 2: 7L Coating Station/Oven Exhaust 5		
STRU 3: 7L Coating Station/Oven Exhaust 6		
STRU 6: ST7 Coating Station Exhaust 1		
STRU 7: ST7 Coating Station Exhaust 2		
STRU 12: 3L Oven 1 Bypass		
STRU 13: 3L Oven 2 Bypass		
STRU 14: 3L Oven 3 Bypass		
STRU 15: 3L Oven 4 Bypass		
STRU 16: 3L Oven 5 Bypass		
STRU 17: 3L Oven 6 Zone 1 Bypass		
STRU 18: 3L Oven 6 Zone 2 Bypass		
STRU 19: 3L Oven 6 Zone 3 Bypass		
STRU 20: 3L Coating Station 1 Bypass		
STRU 21: 3L Coating Station 2 Bypass		
STRU 22: 3L Coating Station 3 Bypass		
STRU 23: 3L Coating Station 4 Bypass		
STRU 24: 3L Coating Station 5 Bypass		
STRU 25: 3L Coating Station 6 Bypass		
STRU 27: Enterprise Coating Station Bypass		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 28: Enterprise Oven 1 Bypass		
STRU 29: Enterprise Oven 2 Bypass 1		
STRU 30: Enterprise Oven 2 Bypass 2		
STRU 32: Enterprise Thermal Oxidizer		
STRU 33: 19J Extruder Venturi Scrubber		
STRU 49: H1 Curing Chamber		
STRU 51: LT3 Saturant Oven Exhaust 1		
STRU 52: LT3 Saturant Oven Exhaust 2		
STRU 53: LT3 Saturant Oven Exhaust 3		
STRU 54: LT3 Coating Oven Exhaust 1		
STRU 55: LT3 Coating Oven Exhaust 2		
STRU 57: 8L Precoating 1 Oven		
STRU 58: 8L Precoating 2 Oven		
STRU 59: 8L Coating Oven Exhaust 1		
STRU 60: 8L Coating Oven Exhaust 2		
STRU 61: 8L Coating Oven Exhaust 3		
STRU 62: 8L Coating Oven Exhaust 4		
STRU 63: 8L Coating Oven Exhaust 5		
STRU 64: 8L Coating Oven Exhaust 6		
STRU 67: 22 Coating Station		
STRU 145: 26 Oven Bypass		
STRU 146: 27 Coater Oven Bypass		
STRU 147: 28 Coater		

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SI ID: Description	Relationship type	Related SI ID: Description
Oven		
STRU 153: 26 Coating Station Bypass		
STRU 154: 27 Coating Station		
STRU 155: 28 Coating Station		
STRU 194: Solvent Tank 47		
STRU 197: Tank 42		
STRU 211: Mogul 2 Articulated Vent		
STRU 212: Mogul 2 Hood		
STRU 213: Mogul 2 Vent		
STRU 214: Mogul 1 Articulated Vent		
STRU 215: Mogul 1 Hood		
STRU 216: Mogul 1 Vent		
STRU 217: Compounding Room 1 - Churns and Blenders		
STRU 218: Compounding Room 2 - Blenders		
STRU 219: Compounding Room 3 - Blender		
STRU 220: Compounding Room 4 - Cleaning Tanks		
STRU 221: 1L Precoating Oven 1 Bypass		
STRU 222: 1L Precoating 2 Oven Bypass		
STRU 224: 1L Coating Oven Bypass 1		
STRU 225: 1L Coating Oven Bypass 2		
STRU 228: 5L Coating Oven Bypass 3		
STRU 230: 5L Coating Oven Bypass 2		
STRU 231: 5L Coating Station Bypass 1		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 232: 5L Coating Oven Bypass 1		
STRU 234: 10J Venturi Scrubber		
STRU 237: 5L SRU Stripper		
STRU 238: 5L Coating Station Bypass 2		
STRU 239: 5L Coating Station Bypass 3		
STRU 242: 6L Thermal Oxidizer		
STRU 243: 6L Precoating Stations 1&2 Bypass		
STRU 244: Boiler 5		
STRU 245: Boiler 4		
STRU 246: Boiler 3		
STRU 247: LM3 Coating Station 1 Bypass		
STRU 248: LM3 Drying Oven 1A Bypass		
STRU 249: LM3 Oven 1B Bypass		
STRU 250: LM3 Coating Station 2 Bypass		
STRU 251: LM3 Drying Oven 2A Bypass		
STRU 252: LM3 Oven 2B Bypass		
STRU 253: LM3 Thermal Oxidizer		
STRU 292: 6L Coating Oven Exhaust 1		
STRU 293: 6L Coating Oven Exhaust 2		
STRU 294: 6L Coating Oven Exhaust 3		
STRU 295: 6L Coating Oven Exhaust 4		
STRU 296: 6L Coating Oven Exhaust 5		
STRU 297: 6L Coating Oven Exhaust 6		
STRU 298: H1 Coating Station		
STRU 299: H1 Extrusion		

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SI ID: Description	Relationship type	Related SI ID: Description
STRU 310: 7L Precoating Station/Oven 1		
STRU 311: 7L Precoating Station/Oven 3		
STRU 312: 7L Coating Station/Oven Exhaust 1		
STRU 313: 7L Coating Station/Oven Exhaust 2		
STRU 314: 7L Coating Station/Oven Exhaust 3		
STRU 315: 1L/3L Thermal Oxidizer		
STRU 362: Voyager Thermal Oxidizer		
STRU 363: Voyager Coating Station 1 Bypass		
STRU 364: Voyager Oven 1 Bypass		
STRU 365: Voyager Oven 2 Bypass 1		
STRU 366: Voyager Oven 2 Bypass 2		
STRU 367: Voyager Oven 2 Bypass 3		
STRU 368: Voyager Coating Station 2 Bypass		
STRU 369: Voyager Oven 3 Bypass		
STRU 370: Voyager Oven 4 Bypass 1		
STRU 371: Voyager Oven 4 Bypass 2		
STRU 372: Voyager		

SI ID: Description	Relationship type	Related SI ID: Description
Oven 4 Bypass 3		
STRU 374: 26 Thermal Oxidizer		
STRU 376: 22 Coater Oven		
STRU 379: GEN-35 Stack		
STRU 381: GEN- KOHLER Stack		
STRU 382: GEN-31 Stack		
STRU 383: GEN-33 Stack		
STRU 384: GEN-15 Stack		
STRU 385: GEN-16 Stack		
STRU 386: GEN-32 Stack		
STRU 387: Fire Pump 1 Stack		
STRU 388: Fire Pump 2 Stack		
STRU 389: APF1 Coating Applicator 1 Stack		
STRU 390: APF1 Coating Applicator 2 Stack		
STRU 391: APF2 Coating Applicator 1 Stack		
STRU 392: APF2 Coating Applicator 2 Stack		
STRU 394: Masking Systems Line 1 and 2 Stack		
STRU 397: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 1 Stack		
STRU 398: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 2 Stack		
STRU 399: Excalibur Ink Printer/LAB Coater		

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SI ID: Description	Relationship type	Related SI ID: Description
& Electric Dryer Station 3 Stack		
STRU 400: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 4 Stack		
STRU 401: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 5 Stack		
STRU 402: Excalibur Ink Printer/LAB Coater & Electric Dryer Station 6 Stack		
STRU 408: Voyager Compounding Room Transfer Rack Stack		
STRU 409: 22-28 Compounding Transfer Rack 1 Stack		
STRU 410: 22-28 Compounding Transfer Rack 2 Stack		
STRU 411: Compounding Room 1 Transfer Rack Stack		
STRU 412: Compounding Room 4 Transfer Rack Stack		
STRU 413: North Plant Emergency Generator Stack		
STRU 414: Acrylic Acid Bulk Storage Exhaust		
STRU 415: South Tank 2 Exhaust		
STRU 416: South Tank 4 Exhaust		
STRU 417: South Tank 5 Exhaust		
STRU 418: South Tank 6 Exhaust		
STRU 419: South Tank 13 Exhaust		
STRU 420: Solvent Tank 44		
STRU 421: South Tank 1 Exhaust		
STRU 422: South Tank 3 Exhaust		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 423: LT3 Printer Oven Stack		
STRU 424: GEN-14 (NG, 469 HP)		
STRU 425: SFS109		
STRU 426: APF1 Printer		
STRU 427: APF2 Printer		
STRU 428: 4Y Extruder		
STRU 429: 27 Corona Treater		
STRU 430: 9J Corona Treater		
STRU 431: ST7 Corona Treater		
STRU 432: 16J Corona Treater		
STRU 433: Microabrasives Compounding		
STRU 434: HazWaste Transfer Rack		
STRU 435: ST6 Oven Exhaust 1		
STRU 436: ST6 Oven Exhaust 2		
STRU 437: ST6 Oven Exhaust 3		
STRU 438: ST6 Oven Exhaust 4		
STRU 439: ST7 Oven Exhaust 1		
STRU 440: ST7 Oven Exhaust 2		
STRU 441: ST7 Oven Exhaust 3		
STRU 442: ST7 Oven Exhaust 4		
STRU 443: NCC Compounding 2nd Floor Wash Tank and Equipment Leaks Stack		
STRU 444: NCC Compounding Tunnel Wash Tank and Equipment Leaks Stack		
STRU 445: Enterprise Solution Delivery Wash		

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SI ID: Description	Relationship type	Related SI ID: Description
Tank and Equipment Leaks Stack		
STRU 446: ST5 Equipment Leaks Stack		
STRU 447: 22 Coater Solution Delivery Wash Tank		
STRU 448: 3L Coater Wash Tank		
STRU 449: Bldg. 20 Compounding Wash Tanks		
STRU 450: Tank 52 Barrier 1 (52-B-1) Exhaust		
STRU 451: Tank 52 Primer 1 (52-P-1) Exhaust		
STRU 452: Tank 52 Saturant 1 (52-S-1) Exhaust		
STRU 453: Tank 52 Saturant 2 (52-S-2) Exhaust		
STRU 460: 5L Corona Treater		
STRU 485: LM3 Corona Treater		
STRU 486: 5L Primer Oven		
STRU 487: 3L Corona Treater Exhaust		
STRU 489: ST5 Coating Station		
STRU 490: ST5 Oven		
STRU 491: ST6 Coating Oven Exhaust 1		
STRU 494: ST7 Coating Station Exhaust		
STRU 495: LM3 Cleaning		
STRU 496: ST6/ST7 Compounding A		
STRU 497: ST6/ST7		

SI ID: Description	Relationship type	Related SI ID: Description
Compounding B		
STRU 498: ST6 Cleaning Exhaust		
STRU 499: Building 0		
STRU 500: Building 2		
STRU 501: Building 3		
STRU 502: Building 4		
STRU 503: Building 5		
STRU 504: Building 6		
STRU 505: Building 7		
STRU 506: Building 8		
STRU 507: Building 9		
STRU 508: Building 13		
STRU 509: Building 15		
STRU 510: Building 17		
STRU 511: Building 18		
STRU 512: Building 19		
STRU 513: Building 20		
STRU 514: Building 21		
STRU 515: Building 22		
STRU 516: Building 23		
STRU 517: Building 24n		
STRU 518: Building 24s		
STRU 519: Building 25		
STRU 520: Building 26		
STRU 521: Building 27		
STRU 522: Building 28		
STRU 523: Building 29		
STRU 524: Building 30		
STRU 525: Building 31		
STRU 526: Building 32		
STRU 527: Building 33		
STRU 528: Building 34		
STRU 529: Building 35		
STRU 530: Building 36		
STRU 531: Building 37		
STRU 532: Building 38		
STRU 533: Building 39		
STRU 534: Building 40		
STRU 535: Building 41		
STRU 536: Building 42		
STRU 537: Building 43		
STRU 538: Building 65		
STRU 539: Building 66		
STRU 540: Building 67		
STRU 541: Building 68		
STRU 542: Building 70		
STRU 543: Building 71		
STRU 544: Building 72		
STRU 545: Building 73		

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SI ID: Description	Relationship type	Related SI ID: Description
STRU 546: South Annex		
STRU 547: Building 53		
TREA 6: Voyager Thermal Oxidizer		
TREA 8: 1L/3L Thermal Oxidizer		
TREA 10: 10J Venturi Scrubber		
TREA 11: 5L Solvent Recovery Unit		
TREA 12: Enterprise Thermal Oxidizer		
TREA 13: 19J Venturi		

SI ID: Description	Relationship type	Related SI ID: Description
Scrubber		
TREA 15: 6L Thermal Oxidizer		
TREA 22: Condenser	sends to	EQUI 267: Condenser's (TREA 22) ethylene glycol chiller return RTD data acquisition system
TREA 24: 26/27 Thermal Oxidizer		

5. Limits and other requirements

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TFAC 1	3M - Hutchinson Tape Manufacturing Plant
5.1.1	The Permittee must comply with Minn. Stat. 116.385. The Permittee may not use trichloroethylene at its permitted facility including in any manufacturing, processing, or cleaning processes, except as described in Minn. Stat. 116.385, subd. 2(b) and 4. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0100, subp. 7(X), Minn. Stat. 116.385]
5.1.2	PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800(A)(2)]
5.1.3	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee must comply with all requirements contained in; Appendix A. Insignificant Activities and general applicable requirements; Appendix B. Maximum Contents of Materials and Process Rate; Appendix C. 40 CFR Part 60, Subpart A - General Provisions; Appendix D. 40 CFR Part 63, Subpart A - General Provisions; and Appendix E. 40 CFR Part 63, Subpart UU - National Emission Standards for Equipment Leaks - Control Level 2 Standards. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.1.4	Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]
5.1.5	The Permittee must at all times properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them that are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. [Minn. R. 7007.0800, subp. 16(J)]
5.1.6	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
5.1.7	Operation Changes: In any shutdown, breakdown, or deviation the Permittee must immediately or as soon as possible considering plant and personnel safety take all practical steps to modify operations to reduce the emission of any regulated air pollutant. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment are permitted to operate. [Minn. R. 7019.1000, subp. 4]
5.1.8	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material

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	in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]
5.1.9	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]
5.1.10	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
5.1.11	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
5.1.12	Performance Test Notifications and Submittals: Performance Test Notification and Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due seven days before each Performance Test Performance Test Report: due 45 days after each Performance Test The Notification, Test Plan, and Test Report must be submitted in a format specified by the commissioner. [Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]
5.1.13	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's follow up compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]
5.1.14	Monitoring Equipment Calibration - The Permittee shall either: 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]
5.1.15	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]
5.1.16	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
5.1.17	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
5.1.18	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary

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	source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
5.1.19	These following 40 CFR 52.21(r)(6) requirements apply if a reasonable possibility (RP) as defined in 40 CFR 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at 40 CFR 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of 40 CFR 52.21(r)(6)(vi)(b). Even though a particular modification is not subject to New Source Review (NSR), or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by Minn. R. 7007.1150 - 7007.1500. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
5.1.20	Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following: 1. Project description 2. Identification of any emission unit whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing emission unit, and the projected post-change potential emissions of any affected existing or new emission unit. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the emission unit could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7007.1200, subp. 4, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
5.1.21	Shutdown Notifications: Notify the commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the Permittee does not have advance knowledge of the shutdown, the Permittee must notify the commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator must inform the commissioner of the cause of the shutdown and the estimated duration. The owner or operator must notify the commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]
5.1.22	Breakdown Notifications: Notify the commissioner within 24 hours of a breakdown of more than one hour of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the Permittee must inform the

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	commissioner of the cause of the breakdown and the estimated duration. The Permittee must notify the commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]
5.1.23	Notification of Deviations Endangering Human Health or the Environment: Immediately after discovery of the deviation or immediately after when the deviation reasonably should have been discovered, notify the commissioner either orally or by e-mail, or telephone the state duty officer at 800-422-0798 or 651-649-5451, of any deviation from permit conditions that could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]
5.1.24	Notification of Deviations Endangering Human Health or the Environment Report: Within two working days of discovery, notify the commissioner in writing of any deviation from permit conditions that could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
5.1.25	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed. Upon adoption of a new or amended federal applicable requirement, and if there are three or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]
5.1.26	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
5.1.27	Within 15 days of a request from the Commissioner, the Permittee must provide a complete summary of all performance tests required at the facility including the subject item, pollutant, most recent test date (if applicable), and the date of the next test in an approved format. [Minn. R. 7007.0800, subp. 16(L)]
5.1.28	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]
5.1.29	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
5.1.30	The Permittee must comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0090. Compliance must be demonstrated upon written request by the MPCA. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.31	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
5.1.32	Post-change Emissions - The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the

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	project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
5.1.33	The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain: a. The name and ID number of the Facility, and the name and telephone number of the Facility contact person; b. The annual emissions identified in the Post-change Emissions requirement (above); and c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
COMG 3	Units Subject to Pre-1969 Industrial Process Equipment Rule
5.2.1	The limits in COMG 3 apply to each individual unit. [Minn. R. 7011.0710, subp. 1]
5.2.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0710, subp. 1(B)]
5.2.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0710, subp. 1(A)]
COMG 4	7L BACT Conditions and 40 CFR pt. 60, subp. RR
5.3.1	The Permittee must limit Volatile Organic Compounds <= 0.14 kilograms per kilograms (lbs of VOC emitted/lb of coating solids applied) calculated on a weighted average basis for a calendar month. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.3.2	The Permittee must limit emissions of Volatile Organic Compounds <= 85 tons per year 12-month rolling sum (total mass of VOC) to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 4. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 4. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.3.3	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used in COMG 4 units. This must be based on production records maintained in written form or as computer files. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.3.4	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement in COMG 4; 2) The VOC emissions for the previous month using the formulas specified in COMG 4; 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months; and

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	4) The weighted average VOC emissions for the previous month using the formulas specified in 40 CFR 60.443(a)(2). [Minn. R. 7007.0800, subps. 4-5]
5.3.5	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: VOC (tons/month) = V - W $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.3.6	Material Content. VOC and solids contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.3.7	Waste Credit: If the Permittee elects to obtain credit for solids and/or VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the solids and VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC and/or solids. 2) The Permittee may use supplier data for raw materials to determine the VOC and solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC and solids content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.3.8	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 4. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.3.9	The Permittee must limit Volatile Organic Compounds ≤ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.3.10	Monitoring: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24 or by the coating manufacturer's formulation data.

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	(2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2): $G = \frac{\sum(W_{oi} \cdot M_{ci})}{\sum(W_{si} \cdot M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.3.11	Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.3.12	The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as deemed appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.3.13	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3);

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	40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 5	LT3 BACT Conditions
5.4.1	The Permittee must limit Volatile Organic Compounds ≤ 0.14 kilograms per kilograms (lbs of VOC emitted/lb of coating solids applied) calculated on a weighted average basis for a calendar month. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.4.2	Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total quantity of each coating and other VOC-containing material used in COMG 5. This shall be based on written or electronic production records. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.4.3	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit; and 2) The VOC emissions for the previous month using the formula below: $G = (\text{sum of } W_o * M) / (\text{sum of } W_s * M)$ Where: G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month W_o = the weight fraction of organics applied of each coating applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. W_s = the weight fraction of solids applied of each coating applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data M = the total mass (kg) of each coating applied during the calendar month as determined from facility records. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.4.4	Material Content. VOC contents in materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference

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	methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.4.5	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 5. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 8	5L PSD Limits to avoid major modification, 5L SRU Requirements
5.5.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 113 tons per year 12-month rolling average (total mass of VOC emitted) to be calculated by the 15th day of each month for the previous 12-month period as described later in COMG 8. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 8. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 8. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.5.2	The Permittee shall limit Volatile Organic Compounds $\leq$ 3,018 pounds per hour calendar month average of VOC applied to be calculated by the 15th day of each month for the previous month based on records of the amount of VOC applied and hours of operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.5.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 80 percent control efficiency when using coating solutions that are not low VOC as defined in this permit. The Permittee may operate COMG 8 emission units without operating TREA 11 when using low VOC coating solutions (as defined in COMG 8). See Subject Item TREA 11 for specific operating requirements. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.5.4	For purposes of COMG 8, coating solutions are considered to be "low VOC" when the VOC content is less than or equal to 10 percent by weight. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.5.5	Maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or re-qualification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as established in the product standard. Percent VOC shall be determined according to Reference Method 24, the coating manufacturer's formulation data, or an alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
5.5.6	The Permittee must vent emissions from EQUI 14 and EQUI 188 to control equipment meeting the requirements of TREA 11 whenever EQUI 14 or EQUI 188 operate and are not using low VOC coating solutions. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.5.7	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a

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	record of the total quantity of each material and other VOC-containing material used at each emission unit (EQUIs 14, 184, and 188) listed under COMG 8. This shall be based on written or electronic usage logs. Daily records must include, but are not limited to, the VOC weight fraction of each material used, the total weight of material used, and the time periods during which coatings or solutions that are not "low VOC" coatings or solutions are in use. The VOC content shall be determined as specified under the Material Content condition listed in COMG 8. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.5.8	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of COMG 8; 2) The VOC emissions for the previous month using the formulas specified in COMG 8; and 3) The 12-month rolling average VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months and dividing by 12. [Minn. R. 7007.0800, subps. 4-5]
5.5.9	Volatile Organic Compounds: Monthly Calculations. The Permittee shall calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1 \times (1-EF)) + (A2 \times B2 \times (1-EF)) + (A3 \times B3 \times (1-EF)) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; EF = control efficiency of TREA 11. If TREA 11 was not operated because a Low VOC or water based material was used, EF = 0 for that material. W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.5.10	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.5.11	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]

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5.5.12	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 8. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 9	6L BACT Conditions, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF
5.6.1	The Permittee must limit emissions of Volatile Organic Compounds ≤ 0.037 kilograms per kilograms (lbs of VOC emitted/lb of coating solids applied) (total mass of VOC) as a calendar month average. This is a limit on emissions, not a usage limit, and is equivalent to 0.037 lbs of VOC emitted/lb of coating solids applied. When applying low-solvent coatings (coatings with less than 0.037 lb VOC/lb coating solids applied), this limit may be met without the operation of pollution control equipment (See Subject Item TREA 15). [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.6.2	The Permittee must limit usage of Volatile Organic Compounds $\leq 3,725$ pounds per hour of VOC, as a calendar month average based on records of the amount of VOC applied and actual time in operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.6.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds ≥ 95 percent control efficiency when using coating solutions that are not low VOC when operating any emission unit in COMG 9. Low VOC coating solutions (as defined in COMG 9) may be used without operating control equipment. See Subject Item TREA 15 for specific operating requirements. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.6.4	Low VOC coating solutions are defined as coatings with VOC content less than 5% by weight for COMG 9. Low VOC coating solutions may be used without operation of control equipment when operating COMG 9 emission units. [Minn. R. 7007.0800, subps. 4-5]
5.6.5	Maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or re-qualification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as established in the product standard. Percent VOC shall be determined by Reference Method 24, the Material Content requirements of this permit, or an alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
5.6.6	Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at COMG 9. The Permittee shall maintain records in written form or computer files. Daily records shall include the VOC weight fraction of each material used, the total weight of material used, and the time periods during which coatings or solutions that are not "low VOC" coatings or solutions are in use. The VOC content shall be determined as specified under the Material Content condition listed in COMG 9. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.6.7	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following:

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	1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of COMG 9; and 2) The weighted average VOC emissions for the previous month using the formulas specified in 40 CFR 60.443(a)(2). [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.6.8	Material Content. VOC and solids contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.6.9	Waste Credit: If the Permittee elects to obtain credit for solid and/or VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the solid and/or VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC and solids. 2) The Permittee may use supplier data for raw materials to determine the VOC and solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC and solids content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.6.10	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 9. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.6.11	40 CFR pt. 60, subp. RR Compliance Options: For each calendar month, the Permittee must be in compliance with Option A or B to meet the standards in 40 CFR 60.442(a) for the entire month. The Permittee may switch between Option A and B. The Permittee must keep records to show which option the Permittee is demonstrating compliance with for the calendar month and keep all applicable records for the chosen compliance option. Calculations required to show compliance must be completed by the 15th day after the end of each month. [40 CFR pt. 60, subp. RR, Minn. R. 7011.2560]
5.6.12	Option A: The Permittee must limit Volatile Organic Compounds $\geq$ 90 percent overall VOC emission reduction as calculated over a calendar month for each affected facility; or The Permittee must demonstrate the percent overall VOC emission reduction specified in 40 CFR 60.443(b) as calculated over a calendar month. [40 CFR 60.442(a)(2), Minn. R. 7011.2560]
5.6.13	Option A Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures:

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	(1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2); $G = \frac{\sum(W_{oi} \cdot M_{ci})}{\sum(W_{si} \cdot M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. [40 CFR 60.443(a), Minn. R. 7011.2560]
5.6.14	Option A Compliance: To determine compliance with 40 CFR 60.442(a)(2), the Permittee shall calculate the required overall VOC emission reduction, R_q, according to the equation in 40 CFR 60.443(b); $R_q = ((G - 0.20)/G) \times 100$ where R_q = the required overall VOC emission reduction (in percent). G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. If R_q is less than or equal to 90 percent, then the required overall VOC emission reduction is R_q. If R_q is greater than 90 percent, then the required overall VOC emission reduction is 90 percent. [40 CFR 60.443(b), Minn. R. 7011.2560]
5.6.15	Option A Monitoring: The Permittee shall compare the monthly required overall VOC emission reduction specified in 40 CFR 60.443(b) to the overall VOC emission reduction demonstrated in the most recent performance test which complied with 40 CFR 60.442(a)(2). The monthly required overall VOC emission reduction must be less than or equal to the overall VOC reduction of the most recent performance test. [40 CFR 60.443(d), Minn. R. 7011.2560]
5.6.16	Option A Monthly Records: By the 15th day of each calendar month, the Permittee shall calculate and maintain a record of the VOC percentage reduction required for the previous calendar month for COMG 9, and the actual VOC percentage reduction achieved for COMG 9. [40 CFR 60.443(f), Minn. R. 7011.2560]
5.6.17	Option A: Startups and shutdowns are normal operation for this affected facility. Emissions from these operations are to be included when determining if the standard specified at 40 CFR 60.442(a)(2) is being attained. [40 CFR 60.443(j), Minn. R. 7011.2560]
5.6.18	Option A Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.6.19	Option B: The Permittee must limit Volatile Organic Compounds ≤ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR

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	60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.6.20	Option B Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2): $G = \frac{\sum(W_{oi} \cdot M_{ci})}{\sum(W_{si} \cdot M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.6.21	Option B Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.6.22	Option A and Option B: The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as deemed appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.6.23	Option A and Option B: The Permittee shall maintain and retain records of the measurements required in 40 CFR 60.443 and 60.445 for at least two years following the date of the measurements. Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for an additional three years, for a total of five years from the date of generation. [40 CFR 60.445(h), Minn. R. 7007.0800, subp. 5(C), Minn. R. 7011.2560]
5.6.24	The Permittee shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of +/- 0.75 percent of the temperature being measured expressed in degrees Celsius or +/- 2.5 degrees C. [40 CFR 60.445(e), Minn. R. 7011.2560]
5.6.25	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c);

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	40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.7(f); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
5.6.26	40 CFR pt. 60, subp. FFF: The Permittee shall use inks with a weighted average VOC content less than 1.0 kilogram VOC per kilogram ink solids. [40 CFR 60.582(a)(1), Minn. R. 7011.3150]
5.6.27	To demonstrate compliance with 40 CFR 60.582(a)(1), the Permittee shall determine the weighted average VOC content of the inks according to the following procedures: (1) Determine and record the VOC content and amount of each ink used at the print head, including the VOC content and amount of diluent solvent, for any time periods when VOC emission control equipment is not used. (2) Compute the weighted average VOC content by the equation in 40 CFR 60.583(b)(2); $G = (\text{SUM}(\text{WoiMci}) + \text{SUM}(\text{WojMdj})) / \text{SUM}(\text{MciWsi})$ where

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	G = the weighted average mass of VOC per mass of ink solids applied, in kilograms per kilogram Woi = the weight fraction of VOC in each ink (i) used in the time period as determined from Method 24, manufacturer's formulation data, or plant blending records, in kilograms per kilogram. Mci = the total mass of each ink (i) applied in the time period as determined from plant records, in kilograms. Woj = the weight fraction of VOC in each dilution solvent (j) added at the print line in the time period determined from Method 24, manufacturer's formulation data, or plant blending records, in kilograms per kilogram. Mdj = the total mass of each dilution solvent (j) added at the print line in the time period determined from plant records, in kilograms. Wsi = means the weight fraction of solids in each ink (i) used in the time period as determined from Method 24, manufacturer's formulation data, or plant blending records, in kilograms per kilogram. (3) The weighted average VOC content of the inks shall be calculated over a period that does not exceed one calendar month, or four consecutive weeks. A facility that uses an accounting system based on quarters consisting of two 28 calendar day periods and one 35 calendar day period may use an averaging period of 35 calendar days four times per year, provided the use of such an accounting system is documented in the initial performance test. (4) Each determination of the weighted average VOC content shall constitute a performance test for any period when VOC emission control equipment is not used. Results of the initial performance test must be reported to the Administrator. Method 24 or ink manufacturers' formulation data along with plant blending records (if plant blending is done) may be used to determine VOC content. The Administrator may require the use of Method 24 if there is a question concerning the accuracy of the ink manufacturer's data or plant blending records. (5) If, during the time periods when emission control equipment is not used, all inks used contain less than 1.0 kilogram VOC per kilogram ink solids, the Permittee is not required to calculate the weighted average VOC content, but must verify and record the VOC content of each ink (including any added dilution solvent) used as determined by Method 24, ink manufacturers' formulation data, or plant blending records. [40 CFR 60.583(b), Minn. R. 7011.3150]
5.6.28	To demonstrate compliance with 40 CFR 60.582(a)(1), the Permittee may determine the weighted average VOC content using an inventory system. (1) The inventory system shall accurately account to the nearest kilogram for the VOC content of all inks and dilution solvent used, recycled, and discarded for each affected facility during the averaging period. Separate records must be kept for each affected facility. (2) To determine VOC content of inks and dilution solvent used or recycled, Method 24 or ink manufacturers' formulation data must be used in combination with plant blending records (if plant blending is done) or inventory records or purchase records for new inks or dilution solvent. (3) For inks to be discarded, only Method 24 shall be used to determine the VOC content. Inks to be discarded may be combined prior to measurement of volume or weight and testing by Method 24. (4) The Administrator may require the use of Method 24 if there is a question concerning the accuracy of the ink manufacturer's data or plant records. (5) The Administrator shall approve the inventory system of accounting for VOC content prior to the initial performance test. [40 CFR 60.583(c), Minn. R. 7011.3150]
5.6.29	The Permittee shall submit semiannual reports to the Administrator of occurrences of exceedances of

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	the weighted average VOC content specified in 40 CFR 60.582(a)(1). The Permittee shall postmark the semiannual reports within 30 days following the end of the second and fourth calendar quarters. [40 CFR 60.585(b)(1), 40 CFR 60.585(c), Minn. R. 7011.3150]
5.6.30	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. FFF, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.3150, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 11	Solvent Cleaning Tanks, PSD Limits to avoid a major modification
5.7.1	The Permittee must limit Operating Hours ≤ 346 hours per month 12-month rolling average (EQUIs 124, 125, and 126 combined) to be calculated by the 15th day of each month for the previous 12-month period as described later in COMG 11. Hours of operation are defined as hours that at least one COMG 11 cleaning tank lid is open. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.7.2	Hours: Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total hours of operation. This must be based on written or electronic logs

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	and/or hour meter readings. The Permittee must maintain records in an electronic format. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.7.3	Hours: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total hours of operation for the previous calendar month using the daily records; and 2) The 12-month rolling average hours of operation for the previous 12-month period by summing the monthly hours of operation for the previous 12 months and dividing by 12 months. [Minn. R. 7007.0800, subps. 4-5]
COMG 14	LM3 BACT Conditions
5.8.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 195 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in COMG 14. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 14. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 14. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.8.2	The Permittee must limit usage of Volatile Organic Compounds $\leq$ 2,846 pounds per hour calendar month average based on records of the amount of VOC applied and the hours of operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.8.3	The Permittee must use coating solutions that have a VOC content less than or equal to 0.14 pounds of VOC per pound of solids applied. These coatings are considered "low VOC" coatings. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.8.4	The Permittee must operate and maintain control equipment that meets or exceeds a control efficiency of Volatile Organic Compounds $\geq$ 96 percent control efficiency before using coating solutions greater than 0.14 pounds of VOC per pound of solids applied in any emission unit in COMG 14 and must first apply for the appropriate amendment to incorporate such changes. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.8.5	Before using coating solutions greater than 0.14 pounds of VOC per pound of solids applied, the Permittee must test for capture efficiency using a temporary total enclosure around the LM3 coating operations. Under normal operation, captured VOC emissions must be directed to the control equipment. In the case where a coating station is using "low VOC" solutions or simply not applying material, emissions may be vented to atmosphere. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.8.6	The Permittee shall demonstrate the temporary total enclosure is maintained by meeting the following criteria to determine the capture efficiency during testing: a. Any natural draft opening (NDO) shall be at least four equivalent diameters from each VOC emitting point. b. The total area of all NDOs shall not exceed five percent of the surface area of the enclosure's four walls, floor, & ceiling. c. The average face velocity of air through all NDOs shall be at least 200 ft/min. The direction of air through all NDOs shall be into the enclosure. d. All access doors & windows not included as NDOs & not included in the calculation of face velocities shall be closed during normal operation of the process. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.8.7	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at the facility.

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	This must be based on written or electronic usage logs. Daily records shall include the VOC weight fraction of each material used, and the total weight of material used. The VOC content shall be determined as specified under the Material Content condition listed in COMG 14. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.8.8	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.8.9	Maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or requalification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as established in the product standard. Percent VOC shall be determined by Reference Method 24, the coating manufacturer's formulation data, or an alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
5.8.10	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.8.11	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.8.12	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight

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	content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.8.13	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 14. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 16	Enterprise Coater BACT Conditions and 40 CFR pt. 60, subp. RR
5.9.1	Volatile Organic Compounds $\geq$ 96 percent control efficiency when running VOC-based (as opposed to water or low VOC based) coatings on the line. Water or low VOC based coatings (as defined in COMG 16) may be run without control. See also Subject Item: TREA 12. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.9.2	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 92.6 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in COMG 16. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 16. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 16. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.9.3	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC material used at the facility. This must be based on written or electronic usage logs. Daily records shall include the VOC weight fraction of each material used, the total weight of material used, and the time periods during which the thermal oxidizer (TREA 12) and coatings or solutions that are not "low VOC" or "water-based" coatings or solutions are in use. The VOC content shall be determined as specified under the Material Content condition listed below. The Permittee must maintain records in written form or as computer files. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.9.4	Low VOC or water based coating solutions are defined as coatings with VOC content less than 4% by weight for COMG 16. [Minn. R. 7007.0800, subp. 2(A)]
5.9.5	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.9.6	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1 \times (1 - EF)) + (A2 \times B2 \times (1 - EF)) + (A3 \times B3 \times (1 - EF)) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$

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	where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; EF = the control efficiency of TREA 12. If TREA 12 was not operated because a "low VOC" or "water based" coating or material was used, then EF = 0. W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.9.7	Material Content. VOC and solids contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.9.8	Waste Credit: If the Permittee elects to obtain credit for solids and/or VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC and/or solids content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC and solids. 2) The Permittee may use supplier data for raw materials to determine the VOC and solids contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC and solids content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.9.9	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 16. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.9.10	40 CFR pt. 60, subp. RR Compliance Options: For each calendar month, the Permittee must be in compliance with Option A or B to meet the standards in 40 CFR 60.442(a) for the entire month. The Permittee may switch between Option A and B. The Permittee must keep records to show which option the Permittee is demonstrating compliance with for the calendar month and keep all applicable records for the chosen compliance option. Calculations required to show compliance must be completed by the 15th day after the end of each month. [40 CFR pt. 60, subp. RR, Minn. R. 7011.2560]
5.9.11	Option A: The Permittee must limit Volatile Organic Compounds $\geq$ 90 percent overall VOC emission reduction as calculated over a calendar month for each affected facility; or The Permittee shall demonstrate the percent overall VOC emission reduction specified in 40 CFR 60.443(b) as calculated over a calendar month. [40 CFR 60.442(a)(2), Minn. R. 7011.2560]

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5.9.12	Option A Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the following equation, as listed in 40 CFR 60.443(a)(2); $G = \frac{\sum(W_{oi} \cdot M_{ci})}{\sum(W_{si} \cdot M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. [40 CFR 60.443(a), Minn. R. 7011.2560]
5.9.13	Option A Monitoring: The Permittee shall compare the monthly required overall VOC emission reduction specified in 40 CFR 60.443(b) to the overall VOC emission reduction demonstrated in the most recent performance test which complied with 40 CFR 60.442(a)(2). The monthly required overall VOC emission reduction must be less than or equal to the overall VOC reduction of the most recent performance test. [40 CFR 60.443(d), Minn. R. 7011.2560]
5.9.14	Option A Compliance: To determine compliance with 40 CFR 60.442(a)(2), the Permittee shall calculate the required overall VOC emission reduction, R_q, according to the equation in 40 CFR 60.443(b); $R_q = ((G - 0.20)/G) \times 100$ where R_q = the required overall VOC emission reduction (in percent). G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. If R_q is less than or equal to 90 percent, then the required overall VOC emission reduction is R_q. If R_q is greater than 90 percent, then the required overall VOC emission reduction is 90 percent. [40 CFR 60.443(b), Minn. R. 7011.2560]
5.9.15	Option A: Startups and shutdowns are normal operation for this affected facility. Emissions from these operations are to be included when determining if the standard specified at 40 CFR 60.442(a)(2) is being attained. [40 CFR 60.443(j), Minn. R. 7011.2560]
5.9.16	Option A Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.9.17	Option A Monthly Records: By the 15th day of each calendar month, the Permittee shall calculate and maintain a record of the VOC percentage reduction required for the previous calendar month for COMG 16, and the actual VOC percentage reduction achieved for COMG 16. [40 CFR 60.443(f), Minn.

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	R. 7011.2560]
5.9.18	Option B: The Permittee must limit Volatile Organic Compounds ≤ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.9.19	Option B Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2): $G = \frac{\sum(W_{oi} * M_{ci})}{\sum(W_{si} * M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.9.20	Option B Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.9.21	Option A and B: The Permittee shall maintain and retain records of the measurements required in 40 CFR 60.443 and 60.445 for at least two years following the date of the measurements. Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for an additional three years, for a total of five years from the date of generation. [40 CFR 60.445(h), Minn. R. 7007.0800, subp. 5(C), Minn. R. 7011.2560]
5.9.22	Option A and Option B: The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as deemed appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.9.23	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c);

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	40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.7(f); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 17	Voyager Coating Line BACT Conditions and 40 CFR pt. 60, subp. RR
5.10.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 454.2 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 17. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 17. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.10.2	Volatile Organic Compounds $\geq$ 96 percent control efficiency when running VOC-based (as opposed to low VOC or water-based) coatings on the line. Water based or low VOC based coatings (as defined in COMG 17) may be run without control. See also Subject Item: TREA 6. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]

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5.10.3	Low VOC or water based coating solutions are defined as coatings with VOC content less than 4% by weight. [Minn. R. 7007.0800, subp. 2]
5.10.4	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at the facility. This must be based on written or electronic usage logs. Daily records shall include the VOC weight fraction of each material used, the total weight of material used, and the time periods during which the thermal oxidizer (TREA 6) and coatings or solutions that are not "low VOC" or "water-based" coatings or solutions are in use. The VOC content shall be determined as specified under the Material Content condition listed in COMG 17. The Permittee shall maintain records in written form or as computer files. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.10.5	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.10.6	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1 \times (1 - EF)) + (A2 \times B2 \times (1 - EF)) + (A3 \times B3 \times (1 - EF)) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; EF = the control efficiency of TREA 6. If TREA 6 was not operated because a "low VOC" or "water based" coating or material was used, then EF = 0. W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.10.7	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 17. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.10.8	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]

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5.10.9	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.10.10	40 CFR pt. 60, subp. RR Compliance Options: For each calendar month, the Permittee must be in compliance with Option A or B to meet the standards in 40 CFR 60.442(a) for the entire month. The Permittee may switch between Option A and B. The Permittee must keep records to show which option the Permittee is demonstrating compliance with for the calendar month and keep all applicable records for the chosen compliance option. Calculations required to show compliance must be completed by the 15th day after the end of each month. [40 CFR pt. 60, subp. RR, Minn. R. 7011.2560]
5.10.11	Option A: The Permittee must limit Volatile Organic Compounds ≥ 90 percent overall VOC emission reduction as calculated over a calendar month for each affected facility; or The Permittee shall demonstrate the percent overall VOC emission reduction specified in 40 CFR 60.443(b) as calculated over a calendar month. [40 CFR 60.442(a)(2), Minn. R. 7011.2560]
5.10.12	Option A Monitoring: The Permittee shall compare the monthly required overall VOC emission reduction specified in 40 CFR 60.443(b) to the overall VOC emission reduction demonstrated in the most recent performance test which complied with 40 CFR 60.442(a)(2). The monthly required overall VOC emission reduction must be less than or equal to the overall VOC reduction of the most recent performance test. [40 CFR 60.443(d), Minn. R. 7011.2560]
5.10.13	Option A Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the following equation, as listed in 40 CFR 60.443(a)(2); $G = \frac{\sum(W_{oi} \cdot M_{ci})}{\sum(W_{si} \cdot M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. [40 CFR 60.443(a), Minn. R. 7011.2560]
5.10.14	Option A Compliance: To determine compliance with 40 CFR 60.442(a)(2), the Permittee shall calculate the required overall VOC emission reduction, R_q, according to the equation in 40 CFR

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	60.443(b); $Rq = ((G - 0.20)/G) \times 100$ where Rq = the required overall VOC emission reduction (in percent). G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. If Rq is less than or equal to 90 percent, then the required overall VOC emission reduction is Rq. If Rq is greater than 90 percent, then the required overall VOC emission reduction is 90 percent. [40 CFR 60.443(b), Minn. R. 7011.2560]
5.10.15	Option A: Startups and shutdowns are normal operation for this affected facility. Emissions from these operations are to be included when determining if the standard specified at 40 CFR 60.442(a)(2) is being attained. [40 CFR 60.443(j), Minn. R. 7011.2560]
5.10.16	Option A Monthly Records: By the 15th day of each calendar month, the Permittee shall calculate and maintain a record of the VOC percentage reduction required for the previous calendar month for COMG 17, and the actual VOC percentage reduction achieved for COMG 17. [40 CFR 60.443(f), Minn. R. 7011.2560]
5.10.17	Option A Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.10.18	Option B: The Permittee must limit Volatile Organic Compounds ≤ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.10.19	Option B Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2): $G = \text{SUM}(W_{oi} \cdot M_{ci}) / \text{SUM}(W_{si} \cdot M_{ci})$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). [40 CFR

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	60.443(a), Minn. R. 7011.2560]
5.10.20	Option B Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.10.21	Option A and Option B: The Permittee shall maintain and retain records of the measurements required in 40 CFR 60.443 and 60.445 for at least two years following the date of the measurements. Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for an additional three years, for a total of five years from the date of generation. [40 CFR 60.445(h), Minn. R. 7007.0800, subp. 5(C), Minn. R. 7011.2560]
5.10.22	Option A and Option B: The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as deemed appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.10.23	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.6(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.7(f); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17;

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	40 CFR 60.18(b)-(f); 40 CFR 60.18(g)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 18	ST5 and ST6 BACT Conditions
5.11.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 40 tons per year 12-month rolling sum (total mass of VOC emitted) to be calculated by the 15th day of each month for the previous 12-month period. This is a limit on total combined VOC emissions from coating line ST5 (EQUI 38 and EQUI 271), coating line ST6 (EQUI 36 and EQUI 272), and all other emission units in COMG 18. VOC usage shall be recorded on a daily basis. VOC contents for each VOC-containing material must be determined as described under the Material Content requirement in COMG 18. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 18. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.11.2	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used. This must be based on production records maintained in written form or as computer files. These daily records shall include, but are not limited to the VOC weight of each coating used per batch, the total weight of coating used per batch. VOC emissions from any ancillary processes shall be included in the detailed recordkeeping. The VOC content of the coating shall be determined by Reference Method 24, the coating manufacturer's formulation data, or an alternative method approved by the Commissioner. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.11.3	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.11.4	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record must also include the VOC contents of each material as determined by the

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	Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.11.5	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.11.6	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.11.7	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 18. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 20	1L Coater Limits
5.12.1	The Permittee must limit usage of Volatile Organic Compounds $\leq$ 4,725 pounds per hour calendar month average, based on records of the amount of VOC applied and hours of operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2]
5.12.2	Recordkeeping of maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or requalification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as established in the product standard. Percent VOC shall be determined by Reference Method 24, the coating manufacturer's formulation data, or an alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
COMG 22	22 Coater Limits
5.13.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 300.0 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in COMG 22.

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	VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 22. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 22. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.13.2	The Permittee must limit usage of Volatile Organic Compounds $\leq$ 206 pounds per hour calendar month average, based on records of the amount of VOC applied and hours of operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.13.3	Recordkeeping of maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or requalification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as established in the product standard. Percent VOC shall be determined according to Reference Method 24, the coating manufacturer's formulation data, or an alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
5.13.4	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at the facility. This must be based on written or electronic usage logs. [Minn. R. 7007.0800, subps. 4-5]
5.13.5	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.13.6	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.13.7	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM

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	reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.13.8	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.13.9	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 22. These assumptions are listed in Appendix C of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 25	40 CFR pt. 63, subp. DDDDD
5.14.1	The affected source of 40 CFR pt. 63, subp. DDDDD is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in 40 CFR 63.7575. The subcategory of boilers in COMG 25 as defined in 40 CFR 63.7575 are units designed to burn gas 1 fuels. [40 CFR 63.7485, 40 CFR 63.7490(a)(1), 40 CFR 63.7499(l), Minn. R. 7011.7050]
5.14.2	This permit includes a fuel switch or physical change to the boilers that resulted in the applicability of a different subcategory after January 31, 2016, therefore the Permittee must be in compliance with the applicable existing source provisions of 40 CFR pt. 63, subp. DDDDD on the effective date of the fuel switch or physical change. [40 CFR 63.7495(b), 40 CFR 63.7495(h), 40 CFR 63.7510(e), Minn. R. 7011.7050]
5.14.3	The Permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545 and in 40 CFR pt. 63, subp. A. Some of the notifications must be submitted before the Permittee is required to comply with the emission limits and work practice standards in 40 CFR pt. 63, subp. DDDDD. [40 CFR 63.7495(d), Minn. R. 7011.7050]
5.14.4	The Permittee must meet each work practice standard in 40 CFR pt. 63, subp. DDDDD, Table 3 that applies to the Permittee's boilers, for each boiler at the source. The Permittee must conduct an annual tune-up of each boiler to demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10)(i) through (vi). Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up. The Permittee must conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. This tune-up is conducted as a work practice for all regulated emissions under 40 CFR pt. 63, subp. DDDDD. If a boiler is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(10), 40 CFR 63.7540(a)(13), 40 CFR pt. 63, subp. DDDDD, Table 3, Minn. R. 7011.7050]
5.14.5	The Permittee must conduct an annual tune-up of each boiler or process heater to demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10)(i) through (vi). The Permittee must conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the

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	boiler or process heater over the 12 months prior to the tune-up. (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection; (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject; (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C), (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; (B) A description of any corrective actions taken as a part of the tune-up; and (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. [40 CFR 63.7540(a)(10)(i) - (vi), Minn. R. 7011.7050]
5.14.6	At all times, the Permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3), Minn. R. 7011.7050]
5.14.7	The Permittee must be in compliance with the emission limits, work practice standards, and operating limits in 40 CFR pt. 63, subp. DDDDD. 40 CFR pt. 63, subp. DDDDD emission and operating limits apply at all times the affected units are operating, except during periods of startup and shutdown during which time the Permittee must

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	comply only with items 5 and 6 of 40 CFR pt. 63, subp. DDDDD, Table 3. [40 CFR 63.7500(f), 40 CFR 63.7505(a), Minn. R. 7011.7050]
5.14.8	The Permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.7545(a), Minn. R. 7011.7050]
5.14.9	If the Permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR pt. 63, 60, 61, or 65, or other gas 1 fuel to fire the affected units during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the Permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of 40 CFR 63.7545 (listed below). (1) Company name and address. (2) Identification of the affected unit. (3) Reason the Permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began. (4) Type of alternative fuel that you intend to use. (5) Dates when the alternative fuel use is expected to begin and end. [40 CFR 63.7545(f), Minn. R. 7011.7050]
5.14.10	If the Permittee switched fuels or made a physical change to the boilers and the fuel switch or physical change resulted in the applicability of a different subcategory, the Permittee must provide notice of the date upon which they switched fuels or made the physical change within 30 days of the switch/change. The notification must identify: (1) The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, the location of the source, the boiler(s) that have switched fuels, were physically changed, and the date of the notice. (2) The currently applicable subcategory under 40 CFR pt. 63, subp. DDDDD. (3) The date upon which the fuel switch or physical change occurred. [40 CFR 63.7545(h), Minn. R. 7011.7050]
5.14.11	The Permittee must submit a compliance report annually. The report must contain the following: a. Information required in 40 CFR 63.7550(c)(1) through (5); and b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies and there are no deviations from the requirements for work practice standards for periods of startup and shutdown in 40 CFR pt. 63, subp. DDDDD, Table 3 that apply, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and c. If there is a deviation from any emission limitation (emission limit and operating limit) where the Permittee is not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in 40 CFR 63.7550(d); and

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	d. If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in 40 CFR 63.8(c)(7), or otherwise not operating, the report must contain the information in 40 CFR 63.7550(e). [40 CFR 63.7540(b), 40 CFR 63.7550(a), 40 CFR pt. 63, subp. DDDDD, Table 9, Minn. R. 7011.7050]
5.14.12	Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the Permittee must submit each report, according to 40 CFR 63.7550(h), by the date in 40 CFR pt. 63, subp. DDDDD, Table 9 and according to the requirements in 40 CFR 63.7550(b)(1) through (4)(listed below). The Permittee may submit only an annual compliance report, as applicable, as specified in 40 CFR 63.7550(b)(1) through (4), instead of a semi-annual compliance report. (1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler in 40 CFR 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for the Permittee in 40 CFR 63.7495. If submitting an annual compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler in 40 CFR 63.7495 and ending on December 31 within 1 year after the compliance date that is specified for the Permittee in 40 CFR 63.7495. (2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler in 40 CFR 63.7495. The first annual compliance report must be postmarked or submitted no later than January 31. (3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual compliance reports must cover the applicable 1-year period from January 1 to December 31. (4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual compliance reports must be postmarked or submitted no later than January 31. (5) For each affected source that is subject to permitting regulations pursuant to 40 CFR pt. 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in 40 CFR 63.7550(b)(1) through (4). [40 CFR 63.7550(b), Minn. R. 7011.7050]
5.14.13	A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule: -Company and Facility name and address. -Process unit information, emissions limitations, and operating parameter limitations. -Date of report and beginning and ending dates of the reporting period. -Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually, and was delayed until the next scheduled or unscheduled unit shutdown. -Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7550(c)(1), 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii), Minn. R. 7011.7050]
5.14.14	The Permittee must submit all reports required by 40 CFR pt. 63, subp. DDDDD, Table 9 electronically

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	to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The Permittee must use the appropriate electronic report in CEDRI for 40 CFR pt. 63, subp. DDDDD. Instead of using the electronic report in CEDRI for 40 CFR pt. 63, subp. DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to 40 CFR pt. 63, subp. DDDDD is not available in CEDRI at the time that the report is due, the Permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The Permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3), 40 CFR pt. 63, subp. DDDDD, Table 9, Minn. R. 7011.7050]
5.14.15	The Permittee must keep records of a copy each notification and report that was submitted to comply with 40 CFR pt. 63, subp. DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1), Minn. R. 7011.7050]
5.14.16	If the Permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR pt. 63, subp. DDDDD, other gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR pt. 63, 60, 61, or 65, the Permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. [40 CFR 63.7555(h), Minn. R. 7011.7050]
5.14.17	Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee must keep each record on site, or records must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560, Minn. R. 7011.7050]
5.14.18	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1) and (3); 40 CFR 63.1(c)(1),(2), (5) and (6); 40 CFR 63.1(e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a), (b), and (d)-(f); 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5) and (7); 40 CFR 63.6(c)(1), (2), and (5); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g); 40 CFR 63.6(i)(1)-(6), (8), (9), and (11); 40 CFR 63.6(j); 40 CFR 63.7(a)(2); 40 CFR 63.7(a)(2)(ix);

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	40 CFR 63.7(a)(3) and (4); 40 CFR 63.7(b)-(d); 40 CFR 63.7(e)(2)-(e)(9); 40 CFR 63.7(f)-(h); 40 CFR 63.8(a) and (b); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(c)(9); 40 CFR 63.8(d)(1)-(d)(3); 40 CFR 63.8(e)-(g); 40 CFR 63.9(b)(1), (2), (4), and (5); 40 CFR 63.9; 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(i); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(vi); 40 CFR 63.10(b)(2)(vii)-(xiv); 40 CFR 63.10(c)(1)-(c)(9); 40 CFR 63.10(c)(12)-(c)(13); 40 CFR 63.10(d)(1), (2), and (4); 40 CFR 63.10(e) and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a) and (b); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.7565, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.7050, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
COMG 26	40 CFR pt. 63, subp. JJJJ
5.15.1	The Permittee must limit organic HAP emissions to the level specified in 40 CFR 63.3320(b)(1), (2), (3), or (4) (listed below) for all periods of operation, including startup, shutdown, and malfunction (SSM): (1) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or (2) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or (3) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of the coating solids applied for each month at new affected sources. (4) If the Permittee uses an oxidizer to control organic HAP emissions, operate the oxidizer such that

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	an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) on a dry basis is achieved and the efficiency of the capture system is 100 percent. These limits apply to the collection of all web coating lines at the facility. [40 CFR 63.3300, 40 CFR 63.3320(b)(1)-(4), Minn. R. 7011.7385]
5.15.2	The Permittee must demonstrate compliance each month with the emission limitations in 40 CFR 63.3320(b)(1) through (4). For each monthly demonstration, the Permittee may apply any combination of the emission limitations to each of your web coating lines individually, to each of one or more groupings of your lines (including a single grouping encompassing all lines of your affected source), or to any combination of individual and grouped lines, so long as each web coating line is included in the compliance demonstration for the month (i.e., the Permittee is not required to apply the same emission limitation to each of the individual lines or groups of lines). The Permittee may change the emission limitation that is applied each month to individual or grouped lines, and the Permittee may change line groupings for the monthly compliance demonstration. [40 CFR 63.3320(c), 40 CFR 63.3370, Minn. R. 7011.7385]
5.15.3	The Permittee must maintain the following records on a monthly basis: (1) Records specified in 40 CFR 63.10(b)(2) of all measurements needed to demonstrate compliance, including: -continuous emission monitor data in accordance with the requirements of 40 CFR 63.3350(d); -control device and capture system operating parameter data in accordance with the requirements of 40 CFR 63.3350(c), (e), and (f); -organic HAP content data used for demonstrating compliance in accordance with 40 CFR 63.3360(c); -volatile matter and coating solids content data used for demonstrating compliance with 40 CFR 63.3360(d); -overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of 40 CFR 63.3360(e) and (f); -material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with 40 CFR 63.3370(b), (c), and (d). -emission factor development calculations and HAP content for coating materials used to develop the emission factor as needed for 40 CFR 63.3360(g). (2) Records specified in 40 CFR 63.10(c) for each CMS operated by the Permittee in accordance with the requirements of 40 CFR 63.3350(b), as indicated in 40 CFR pt. 63, subp. JJJJ, Table 2. [40 CFR 63.10(b)(1), 40 CFR 63.3410(a), Minn. R. 7011.7385]
5.15.4	For any web coating line or group of web coating lines using add-on control devices to demonstrate compliance with the emission standards in 40 CFR 63.3320, the Permittee must meet the operating limits specified in 40 CFR pt. 63, subp. JJJJ, Table 1. These operating limits apply to emission capture systems and control devices used to demonstrate compliance with 40 CFR pt. 63, subp. JJJJ, and the Permittee must establish the operating limits during the performance test according to the requirements in 40 CFR 63.3360(e)(3). The Permittee must meet the operating limits at all times after the limits are established. [40 CFR 63.3321(a), Minn. R. 7011.7385]
5.15.5	The Permittee must be in compliance with the emission limits and operating limits in 40 CFR pt. 63, subp. JJJJ at all times. [40 CFR 63.3340(a), Minn. R. 7011.7385]
5.15.6	Representative emission capture system and add-on control device operating conditions. The Permittee must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. Representative conditions exclude periods of startup and shutdown. The Permittee may not conduct performance tests during periods of malfunction. The Permittee must record information that is necessary to document emission capture system and add-

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	on control device operating conditions during the test and explain why the conditions represent normal operation. The Permittee must conduct each performance test required by 40 CFR 63.3360 according to the requirements in 40 CFR 63.3360(e)(2) and under the conditions in 40 CFR 63.3340(c)(2) unless the Permittee obtains a waiver of the performance test according to the provisions in 40 CFR 63.7(h). [40 CFR 63.3340(c)(2), Minn. R. 7011.7385]
5.15.7	Bypass and coating use monitoring. For web coating lines with intermittently-controlled work stations, the Permittee must monitor bypasses of the control device and the mass of each coating material applied at the work station during any such bypass. If using a control device for complying with the requirements of 40 CFR pt. 63, subp. JJJJ, the Permittee must demonstrate that any coating material applied on a never-controlled work station or an intermittently-controlled work station operated in bypass mode is allowed in the compliance demonstration according to 40 CFR 63.3370(o) and (p). The bypass monitoring must be conducted using at least one of the procedures in 40 CFR 3350(c)(1) through (4) for each work station and associated dryer: (1) Flow control position indicator. Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour as well as every time the flow direction is changed. A flow control position indicator must be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere. (2) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve or damper is maintained in the closed position, and the exhaust stream is not diverted through the bypass line. (3) Valve closure continuous monitoring. Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position when the emission source is in operation and is using a control device for compliance with the requirements of this subpart. The monitoring system must be inspected at least once every month to verify that the monitor will indicate valve position. (4) Automatic shutdown system. Use an automatic shutdown system in which the web coating line is stopped when flow is diverted away from the control device to any bypass line when the control device is in operation. The automatic system must be inspected at least once every month to verify that it will detect diversions of flow and would shut down operations in the event of such a diversion. [40 CFR 63.3350(c), Minn. R. 7011.7385]
5.15.8	Liquid-liquid material balance. If the Permittee uses a solvent recovery device to control emissions, the Permittee must perform a monthly liquid-liquid material balance as specified in 40 CFR 63.3370(j)(1)(i) through (v) and listed below: (i) Determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common solvent recovery device during the month. (ii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in 40 CFR 63.3360(c).

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	(iii) Determine the volatile organic content of each coating material as-applied during the month following the procedure in 40 CFR 63.3360(d). (iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in 40 CFR 63.3360(d). (v) Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in 40 CFR 63.3350(d). [40 CFR 63.3370(j)(1)(i)-(v), Minn. R. 7011.7385]
5.15.9	Recovery efficiency. If the Permittee uses a solvent recovery device to control emissions, the Permittee must calculate the volatile organic matter collection and recovery efficiency using Equation 11: $R_v = ((M_{vr} + M_{vret}) / (\sum p(C_{vi} * M_i) + \sum q(C_{vij} * M_{ij}))) * 100$ Where: R_v = Organic volatile matter collection and recovery efficiency, percent. M_{vr} = Mass of volatile matter recovered in a month, kg. M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee chooses to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in 40 CFR pt. 63, subp. JJJJ. p = Number of different coating materials applied in a month. C_{vi} = Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg. M_i = Mass of as-purchased coating material, i, applied in a month, kg. q = Number of different materials added to the coating material. C_{vij} = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg. M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg. Organic HAP emitted. Calculate the organic HAP emitted during the month using Equation 12: $H_e = (1 - (R_v/100)) * (\sum p(C_{hi} * M_i) + \sum q(C_{hij} * M_{ij}) - M_{vret})$ Where: H_e = Total monthly organic HAP emitted, kg. R_v = Organic volatile matter collection and recovery efficiency, percent. p = Number of different coating materials applied in a month. C_{hi} = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg. M_i = Mass of as-purchased coating material, i, applied in a month, kg. q = Number of different materials added to the coating material. C_{hij} = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg. M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg. M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee chooses to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in 40 CFR pt. 63, subp.

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	JJJ. [40 CFR 63.3370(j)(1)(vi)-(vii), Minn. R. 7011.7385]
5.15.10	Oxidizer compliance demonstration procedures. If using an oxidizer to control emissions to comply with 40 CFR pt. 63, subp. JJJ, the Permittee must show compliance by following the procedures in 40 CFR 63.3370(l)(1). (1) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in 40 CFR 63.3370(l)(1)(i) through (vi): (i) Determine the oxidizer destruction efficiency using the procedure in 40 CFR 63.3360(e). (ii) Determine the capture system capture efficiency in accordance with 40 CFR 63.3360(f). (iii) Capture and control efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with 40 CFR 63.3350(e) and (f) to ensure capture and control efficiency. (iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common oxidizer during the month. (v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in 40 CFR 63.3360(c). (vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in 40 CFR 63.3360(d). [40 CFR 63.3370(l)(1), Minn. R. 7011.7385]
5.15.11	Solvent recovery system using liquid-liquid material balance compliance demonstration. To comply by means of a liquid-liquid material balance for each solvent recovery system used to control one or more web coating lines, the Permittee must determine the organic HAP emissions for those web coating lines controlled by that solvent recovery system either: (i) In accordance with 40 CFR 63.3370(j)(1)(i) through (iii) and (v) through (vii), if the web coating lines controlled by that solvent recovery system have only always-controlled work stations; or (ii) In accordance with 40 CFR 63.3370(j)(1)(ii), (iii), (v), and (vi) and (p), if the web coating lines controlled by that solvent recovery system have one or more never-controlled or intermittently-controlled work stations. [40 CFR 63.3370(o)(1), Minn. R. 7011.7385]
5.15.12	Oxidizer. To demonstrate compliance through performance tests of capture efficiency and control device efficiency, continuous monitoring of capture system, and CPMS for control device operating parameters for each oxidizer used to control emissions from one or more web coating lines, the Permittee must: (i) Monitor the operating parameter in accordance with 40 CFR 63.3350(e) to ensure control device efficiency; and (ii) For each capture system delivering emissions to that oxidizer, monitor the operating parameter

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	established in accordance with 40 CFR 63.3350(f) to ensure capture efficiency; and (iii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that oxidizer either: (A) In accordance with 40 CFR 63.3370(l)(1)(i) through (vi), if the web coating lines served by that capture and control system have only always-controlled work stations; or (B) In accordance with 40 CFR 63.3370(l)(1)(i) through (iii), (v), and (p), if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations. [40 CFR 63.3370(o)(3), Minn. R. 7011.7385]
5.15.13	For calculation procedures to determine organic HAP emissions for intermittently-controlled and never-controlled work stations, the Permittee must: (1) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in bypass mode and the mass of all coating materials as-applied on never-controlled work stations during the month. (2) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month. (3) For each web coating line or group of web coating lines for which the Permittee uses the provisions of 40 CFR 63.3370(o)(1)(ii), the Permittee must calculate the organic HAP emitted during the month using Equation 19: $He = (SUMp(Mci * Cah_i) * (1 - (Rv/100))) + (SUMp(MBi * Cah_i) - Mvret)$ Where: He = Total monthly organic HAP emitted, kg. p = Number of different coating materials applied in a month. Mci = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg. Cah_i = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg. Rv = Organic volatile matter collection and recovery efficiency, percent. MBi = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg. Cah_i = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg. Mvret = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee chooses to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in 40 CFR pt. 63, subp. JJJJ. (4) For each web coating line or group of web coating lines for which the Permittee uses the provisions of 40 CFR 63.3370 (o)(2)(ii)(B) or (o)(3)(iii)(B), the Permittee must calculate the organic HAP emitted during the month using Equation 20:

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	$He = (\text{SUMp}(\text{Mci} \cdot \text{Cahi}) * (1 - (R/100)) + (\text{SUMp}(\text{MBi} \cdot \text{Cahi}) - \text{Mvret})$ Where: He = Total monthly organic HAP emitted, kg. p = Number of different coating materials applied in a month. Mci = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg. Cahi = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg. R = Overall organic HAP control efficiency, percent. MBi = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg. Cahi = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg. Mvret = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee chooses to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in 40 CFR pt. 63, subp. JJJ. [40 CFR 63.3370(p), Minn. R. 7011.7385]
5.15.14	The Permittee must determine the organic HAP or volatile matter and coating solids content of the coating materials according to the procedures in 40 CFR 63.3360(c) and (d) if controlling organic HAP on any individual web coating line or any group of web coating lines to demonstrate compliance with the emission limits in 40 CFR 63.3320 by limiting organic HAP or volatile matter content of coatings. If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to 40 CFR 63.3360(g). [40 CFR 63.3360(a)(1), Minn. R. 7011.7385]
5.15.15	If controlling organic HAP on any individual web coating line or any group of web coating lines to demonstrate compliance with the emission limits in 40 CFR 63.3320 by using a capture and control system, the Permittee must: (i) Initially, conduct a performance test for each capture and control system to determine: The destruction or removal efficiency of each control device other than solvent recovery according to 40 CFR 63.3360(e), and the capture efficiency of each capture system according to 40 CFR 63.3360(f). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to 40 CFR 63.3360(g). (ii) Perform a periodic test once every 5 years for each thermal oxidizer to determine the destruction or removal efficiency according to 40 CFR 63.3360(e). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to 40 CFR 63.3360(g). [40 CFR 63.3360(a)(2), Minn. R. 7011.7385]
5.15.16	If the Permittee determines compliance with the emission standards in 40 CFR 63.3320 by means other than determining the overall organic HAP control efficiency of a control device, the Permittee must determine the organic HAP mass fraction of each coating material "as-applied" by following the procedures in 40 CFR 63.3360(c)(4). The recovery efficiency of the test method must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied. [40 CFR 63.3360(c), Minn. R. 7011.7385]
5.15.17	As-applied organic HAP mass fraction - If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP mass fraction is equal to the as-purchased organic HAP mass fraction. Otherwise, the as-applied organic HAP mass fraction must be calculated using Equation 4 of 40 CFR 63.3370. [40 CFR 63.3360(c)(4), Minn. R. 7011.7385]

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5.15.18	If the Permittee complies by using coating materials that meet the emission standards in 40 CFR 63.3320(b)(2) as-applied, the Permittee must demonstrate that each coating material applied at an existing affected source during the month contains no more than 0.04 kg organic HAP per kg coating material applied, and each coating material applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material applied on an as-applied basis as determined in accordance with 40 CFR 63.3370(c)(1)(i) or (ii), listed below. The Permittee must calculate the as-applied organic HAP content of as-purchased coating materials which are reduced, thinned, or diluted prior to application. (i) The Permittee must determine the organic HAP content or volatile organic content of each coating material applied on an as-purchased basis in accordance with 40 CFR 63.3360(c). (ii) The Permittee must calculate the as-applied organic HAP content of each coating material using Equation 4: $C_{ahi} = (C_{hi} * M_i + \sum q(C_{hij} * M_{ij})) / M_i + \sum q(M_{ij})$ Where: C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg. C_{hi} = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg. M_i = Mass of as-purchased coating material, i, applied in a month, kg. q = number of different materials added to the coating material. C_{hij} = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg. M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg. Or calculate the as-applied volatile organic content of each coating material using Equation 5: Equation 5: $C_{avi} = (C_{vi} * M_i + \sum q(C_{vij} * M_{ij})) / M_i + \sum q(M_{ij})$ Where: C_{avi} = Monthly average, as-applied, volatile organic content of coating material, i, expressed as a mass fraction, kg/kg. C_{vi} = Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg. M_i = Mass of as-purchased coating material, i, applied in a month, kg. q = Number of different materials added to the coating material. C_{vij} = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg. M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg. [40 CFR 63.3370(c)(1)(ii), Minn. R. 7011.7385]
5.15.19	If determining compliance with the emission standards by means other than determining the overall organic HAP control efficiency of a control device and the Permittee chooses to use the volatile organic content as a surrogate for the organic HAP content of coatings, the Permittee must determine the as-applied volatile organic content and coating solids content of each coating material by following the procedures of 40 CFR 63.3360(d)(3). [40 CFR 63.3360(d), Minn. R. 7011.7385]
5.15.20	If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied volatile organic content is equal to the as-purchased volatile content and the as-applied coating solids content is equal to the as-purchased coating solids content. Otherwise, the as-applied volatile organic content must be calculated using Equation 5 and the as-applied coating solids content must be calculated using Equation 6. [40 CFR 63.3360(d)(3), Minn. R. 7011.7385]

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5.15.21	If the Permittee complies by using coating materials that meet the emission standards in 40 CFR 63.3320(b)(3) as-applied, the Permittee must demonstrate that each coating material applied at an existing affected source contains no more than 0.20 kg of organic HAP per kg of coating solids applied and each coating material applied at a new affected source contains no more than 0.08 kg of organic HAP per kg of coating solids applied in accordance with 40 CFR 63.3370(c)(2)(i) and (ii). The Permittee must determine the as-applied coating solids content of each coating material following the procedure in 40 CFR 63.3360(d). The Permittee must calculate the as-applied coating solids content of coating materials which are reduced, thinned, or diluted prior to application, using Equation 6. Equation 6: $C_{asi} = (C_{si} * M_i) + \sum q(C_{sij} * M_{ij}) / (M_i + \sum q(M_{ij}))$ Where: C_{asi} = Monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, kg/kg. C_{si} = Coating solids content of coating material, i, expressed as a mass fraction, kg/kg. M_i = Mass of as-purchased coating material, i, applied in a month, kg. q = Number of different materials added to the coating material. C_{sij} = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg. M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg. [40 CFR 63.3370(c)(2)(i), Minn. R. 7011.7385]
5.15.22	If the Permittee complies by using coating materials that meet the emission standards in 40 CFR 63.3320(b)(3) as-applied, the Permittee must demonstrate that each coating material applied at an existing affected source contains no more than 0.20 kg of organic HAP per kg of coating solids applied and each coating material applied at a new affected source contains no more than 0.08 kg of organic HAP per kg of coating solids applied in accordance with 40 CFR 63.3370(c)(2)(i) and (ii). To calculate the as-applied organic HAP to coating solids ratio, the Permittee must use Equation 7: $H_{si} = C_{ahi} / C_{asi}$ Where: H_{si} = As-applied, organic HAP to coating solids ratio of coating material, i. C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg. C_{asi} = Monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, kg/kg. [40 CFR 63.3370(c)(2)(ii), Minn. R. 7011.7385]
5.15.23	Volatile matter retained in the coated web or otherwise not emitted to the atmosphere. The Permittee may choose to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere when determining compliance with the emission standards in 40 CFR 63.3320. If the Permittee chooses this option, the Permittee must develop a site- and product-specific emission factor (EF) and determine the amount of volatile matter retained in the coated web or otherwise not emitted using Equation 3 to 40 CFR 63.3360(g)(1). The EF must be developed by conducting a performance test using an approved EPA test method, or alternative approved by the Administrator by obtaining the average of a three-run test. The Permittee may additionally use manufacturer's emissions test data (as long as it replicates the facility's coating

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	formulation and operating conditions), or a mass-balance type approach using a modified Method 24 (including ASTM D5403-93 for radiation-cureable coatings). The EF should equal the proportion of the mass of volatile organics emitted to the mass of volatile organics in the coating materials evaluated. The Permittee may use the EF in the compliance calculations only for periods that the work station(s) was (were) used to make the product, or a similar product, corresponding to that produced during the performance test. The Permittee must develop a separate EF for each group of different products that the Permittee chooses to utilize an EF for calculating emissions by conducting a separate performance test for that group of products. The Permittee must conduct a periodic performance test to re-establish the EF if there is a change in coating formulation, operating conditions, or other change that could reasonably be expected to increase emissions since the time of the last test that was used to establish the EF. [40 CFR 63.3360(g), Minn. R. 7011.7385]
5.15.24	Calculate the mass of volatile organics retained in the coated web or otherwise not emitted for the month from each group of similar products using Equation 3: $Mvret = (Cvi \cdot Mi + \sum q(Cvij \cdot Mij)) \cdot (1 - Efi)$ Where: Mvret = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. Cvi = Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg. Mi = Mass of as-purchased coating material, i, applied in a month, kg. q = Number of different materials added to the coating material. Cvij = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg. Mij = Mass of material, j, added to as-purchased coating material, i, in a month, kg. Efi = Volatile organic matter site- and product-specific emission factor (three-run average determined from performance testing, evaluated as proportion of mass volatile organics emitted to mass of volatile organics in the coatings used during the performance test). [40 CFR 63.3360(g)(1), Minn. R. 7011.7385]
5.15.25	If the Permittee chooses to demonstrate compliance by use of "as-applied" compliant coating materials and to demonstrate that the monthly average of all coating materials used does not exceed 0.04 kg organic HAP per kg coating material as-applied, then the Permittee must follow the procedures set out in 40 CFR 63.3370(c)(3) and use Equation 8 of 40 CFR 63.3370 to determine compliance with 40 CFR 63.3320(b)(2) in accordance with 40 CFR 63.3370(c)(5)(ii). [40 CFR 63.3370(a)(2)(iii), Minn. R. 7011.7385]
5.15.26	Equation 8: $HL = (\sum p(\chi_i \cdot M_i) + \sum q(\chi_{ij} \cdot M_{ij} - Mvret)) / (\sum p(M_i) + \sum q(M_{ij}))$ Where: HL = Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg. p = Number of different coating materials applied in a month. Chi = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg. Mi = Mass of as-purchased coating material, i, applied in a month, kg. q = Number of different materials added to the coating material. Chij = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg. Mij = Mass of material, j, added to as-purchased coating material, i, in a month, kg. Mvret = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you

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	choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in 40 CFR 63.3370. [40 CFR 63.3370(c)(3), Minn. R. 7011.7385]
5.15.27	If the Permittee chooses to demonstrate compliance by use of "as-applied" compliant coating materials and to demonstrate that the monthly average of all coating materials used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, then the Permittee must follow the procedures set out in 40 CFR 63.3370(c)(4) and use Equation 9 of 40 CFR 63.3370 to determine compliance with 40 CFR 63.3320(b)(3) in accordance with 40 CFR 63.3370(c)(5)(ii). [40 CFR 63.3370(a)(2)(iv), Minn. R. 7011.7385]
5.15.28	Equation 9: $H_s = (\text{SUM}_p(\text{Chi} \cdot \text{Mi}) + \text{SUM}_q(\text{Chij} \cdot \text{Mij} - \text{Mvret})) / (\text{SUM}_p(\text{Csi} \cdot \text{Mi}) + \text{SUM}_q(\text{Csij} \cdot \text{Mij}))$ Where: H_s = Monthly average, as-applied, organic HAP to coating solids ratio, kg organic HAP/kg coating solids applied. p = Number of different coating materials applied in a month. Chi = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg. Mi = Mass of as-purchased coating material, i, applied in a month, kg. q = Number of different materials added to the coating material. Chij = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg. Mij = Mass of material, j, added to as-purchased coating material, i, in a month, kg. Mvret = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee chooses to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in 40 CFR 63.3370. Csi = Coating solids content of coating material, i, expressed as a mass fraction, kg/kg. Csij = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg. [40 CFR 63.3370(c)(4), Minn. R. 7011.7385]
5.15.29	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a)(1)-(4), (6)-(8), and (10)-(14); 40 CFR 63.1(b)(2)-(3); 40 CFR 63.1(c)(1); 40 CFR 63.1(c)(4)-(6); 40 CFR 63.1(e); 40 CFR 63.2; 40 CFR 63.3(a)-(c); 40 CFR 63.4(a)(1)-(3), and (5), 40 CFR 63.4(b); 40 CFR 63.4(c); 40 CFR 63.5(a)(1)-(2); 40 CFR 63.5(b)(1) and (3)-(6); 40 CFR 63.5(d); 40 CFR 63.5(e); 40 CFR 63.5(f); 40 CFR 63.6(a); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1); 40 CFR 63.6(c)(2);

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	40 CFR 63.6(c)(5); 40 CFR 63.6(e)(1); 40 CFR 63.6(e)(3); 40 CFR 63.6(f); 40 CFR 63.6(g); 40 CFR 63.6(i)(1)-(14), and (16); 40 CFR 63.6(j); 40 CFR 63.7(a)-(d); 40 CFR 63.7(e)(2)-(3); 40 CFR 63.7(f)-(h); 40 CFR 63.8(a)(1)-(2); 40 CFR 63.8(b); 40 CFR 63.8(c)(1)-(3), and (6)-(8); 40 CFR 63.8(d)(1)-(2); 40 CFR 63.8(e); 40 CFR 63.8(f); 40 CFR 63.8(g); 40 CFR 63.9(a); 40 CFR 63.9(b)(1)-(5); 40 CFR 63.9(c); 40 CFR 63.9(d); 40 CFR 63.9(e); 40 CFR 63.9(g); 40 CFR 63.9(h)(1)-(3), and (5)-(6); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.9(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(i); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(iv)-(v); 40 CFR 63.10(b)(2)(vi)-(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1), (5)-(8), and (10)-(15); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(d)(5); 40 CFR 63.10(e)(1)-(2); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15; and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40

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	CFR 63.3340(d), 40 CFR pt. 63, subp. A, 40 CFR pt. 63, subp. JJJ, Table 2, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.7385, Minn. R. 7011.7385, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
COMG 27	Units Subject to Post-1969 Industrial Process Equipment Rule
5.16.1	The limits in COMG 27 apply to each individual unit. [Minn. R. 7011.0715, subp. 1]
5.16.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.16.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
COMG 29	8L BACT Conditions and 40 CFR pt. 60, subp. RR
5.17.1	Volatile Organic Compounds <= 0.14 kilograms per kilograms (lbs of VOC emitted/lb of coating solids applied) calculated on a weighted average basis for a calendar month. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.17.2	Volatile Organic Compounds: Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC content of each material as determined by the Material Content requirement in COMG 29; and 2) The weighted average VOC emissions for the previous month using the formulas specified in 40 CFR 60.443(a)(2). [Minn. R. 7007.0800, subps. 4-5]
5.17.3	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC-containing material used in units under COMG 29. This must be based on written production records or computer files. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.17.4	Material Content. VOC contents in materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.17.5	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 29. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.17.6	Volatile Organic Compounds <= 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.17.7	Monitoring: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied

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	by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2). (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.17.8	Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.17.9	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 30	Direct Heating Equipment

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5.18.1	The limits in COMG 30 apply to each individual fossil-fuel burning unit. [Minn. R. 7007.0800, subp. 2(A)]
5.18.2	Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.18.3	Opacity $\leq$ 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.18.4	Fuel type: Natural gas, by design. [Minn. R. 7005.0100, subp. 35a]
5.18.5	The Permittee shall keep records of natural gas fuel purchases showing this fuel type. [Minn. R. 7007.0800, subp. 5]
COMG 31	3L Limits to avoid major modification, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF
5.19.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 95.0 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in COMG 31. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 31. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 31. This limit applies to the total non-combustion VOC emissions in COMG 31. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.19.2	The Permittee must limit usage of Volatile Organic Compounds $\leq$ 5,610 pounds per hour calendar month average based on records of the amount of VOC applied and hours of operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.19.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 95 percent control efficiency when using coating solutions that are not low VOC in any unit in COMG 31. Low VOC coating solutions (as defined in COMG 31) may be used without control equipment. See Subject Item TREA 8 for specific operating requirements. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.19.4	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at COMG 31. This must be based on written or electronic usage logs. Daily records shall include the VOC weight fraction of each material used, the total weight of material used, and the time periods during which coatings or solutions that are not "low VOC" coatings or solutions are in use. The VOC content shall be determined as specified under the Material Content condition listed in COMG 31. The Permittee must maintain records in written form or as computer files. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.19.5	Low VOC coatings are defined as coatings with VOC content less than 5% by weight. Low VOC coatings may be used without operation of control equipment when operating COMG 31 emission units. [Minn. R. 7007.0800, subps. 4-5]
5.19.6	Recordkeeping of maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or requalification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat

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	weight, line speed, web width, and percent VOC as established in the product standard, reference method 24, or alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
5.19.7	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.19.8	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1 \times (1 - EF)) + (A2 \times B2 \times (1 - EF)) + (A3 \times B3 \times (1 - EF)) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; EF = control efficiency of TREA 8. If TREA 8 was not operated because a low VOC or water based material was used, EF = 0 for that material; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.19.9	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 31. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.19.10	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.19.11	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.19.12	40 CFR pt. 60, subp. RR Compliance Options: For each calendar month, the Permittee must be in

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	compliance with Option A or B to meet the standards in 40 CFR 60.442(a) for the entire month. The Permittee may switch between Option A and B. The Permittee must keep records to show which option the Permittee is demonstrating compliance with for the calendar month and keep all applicable records for the chosen compliance option. Calculations required to show compliance must be completed by the 15th day after the end of each month. [40 CFR pt. 60, subp. RR, Minn. R. 7011.2560]
5.19.13	Option A: The Permittee must limit Volatile Organic Compounds ≥ 90 percent overall VOC emission reduction as calculated over a calendar month for each affected facility; or The Permittee shall demonstrate the percent overall VOC emission reduction specified in 40 CFR 60.443(b) as calculated over a calendar month. [40 CFR 60.442(a)(2), Minn. R. 7011.2560]
5.19.14	Option A Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2); $G = \frac{\sum(W_{oi} \cdot M_{ci})}{\sum(W_{si} \cdot M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. [40 CFR 60.443(a), Minn. R. 7011.2560]
5.19.15	Option A Compliance: To determine compliance with 40 CFR 60.442(a)(2), the Permittee shall calculate the required overall VOC emission reduction, R_q, according to the equation in 40 CFR 60.443(b); $R_q = ((G - 0.20)/G) \times 100$ where R_q = the required overall VOC emission reduction (in percent). G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. If R_q is less than or equal to 90 percent, then the required overall VOC emission reduction is R_q. If R_q is greater than 90 percent, then the required overall VOC emission reduction is 90 percent. [40 CFR 60.443(b), Minn. R. 7011.2560]
5.19.16	Option A Monitoring: The Permittee shall compare the monthly required overall VOC emission reduction specified in 40 CFR 60.443(b) to the overall VOC emission reduction demonstrated in the

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	most recent performance test which complied with 40 CFR 60.442(a)(2). The monthly required overall VOC emission reduction must be less than or equal to the overall VOC reduction of the most recent performance test. [40 CFR 60.443(d), Minn. R. 7011.2560]
5.19.17	Option A Monthly Records: By the 15th day of each calendar month, the Permittee shall calculate and maintain a record of the VOC percentage reduction required for the previous calendar month for COMG 31, and the actual VOC percentage reduction achieved for COMG 31. [40 CFR 60.443(f), Minn. R. 7011.2560]
5.19.18	Option A: Startups and shutdowns are normal operation for this affected facility. Emissions from these operations are to be included when determining if the standard specified at 40 CFR 60.442(a)(2) is being attained. [40 CFR 60.443(j), Minn. R. 7011.2560]
5.19.19	Option A Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.19.20	Option A and Option B: The Permittee shall maintain and retain records of the measurements required in 40 CFR 60.443 and 60.445 for at least two years following the date of the measurements. Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for an additional three years, for a total of five years from the date of generation. [40 CFR 60.445(h), Minn. R. 7007.0800, subp. 5(C)]
5.19.21	Option B: The Permittee must limit Volatile Organic Compounds ≤ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.19.22	Option A and Option B: The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as deemed appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.19.23	Option B Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2): $G = \frac{\sum(W_{oi} * M_{ci})}{\sum(W_{si} * M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W _{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M _{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W _{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as

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	determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.19.24	Option B Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.19.25	The Permittee shall continuously record the destruction device combustion temperature during coating operations. The Permittee shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 degrees C (50 degrees F) below the average temperature of the device during the most recent performance test complying with 40 CFR 60.442(a)(2). [40 CFR 60.443(e), Minn. R. 7011.2560]
5.19.26	The Permittee shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of +/- 0.75 percent of the temperature being measured expressed in degrees Celsius or +/- 2.5 degrees C. [40 CFR 60.445(e), Minn. R. 7011.2560]
5.19.27	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.7(f); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4).

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	A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
5.19.28	On and after the date on which the performance test required by 40 CFR 60.8 to demonstrate compliance with 40 CFR pt. 60, subp. FFF has been completed, the Permittee shall reduce VOC emissions to the atmosphere by 85 percent from each affected facility. [40 CFR 60.582(a)(2), Minn. R. 7011.3150]
5.19.29	The Permittee shall use methods in 40 CFR pt. 60, appendix A, except as provided under 40 CFR 60.8(b), to determine compliance with 40 CFR 60.582(a) as follows: (1) Method 24 for analysis of inks. If nonphotochemically reactive solvents are used in the inks, standard gas chromatographic techniques may be used to identify and quantify these solvents. The results of Method 24 may be adjusted to subtract these solvents from the measured VOC content. (2) Method 25A for VOC concentration (the calibration gas shall be propane); (3) Method 1 for sample and velocity traverses; (4) Method 2 for velocity and volumetric flow rates; (5) Method 3 for gas analysis; (6) Method 4 for stack gas moisture. [40 CFR 60.583(a), Minn. R. 7011.3150]
5.19.30	To demonstrate compliance with 40 CFR pt. 60, subp. FFF utilizing the emission reduction option, the Permittee shall conduct a performance test to determine overall VOC emission control efficiency according to the following procedures: (1) The performance test shall consist of three runs. Each test run must last a minimum of 30 minutes and shall continue until the printing operation is interrupted or until 180 minutes of continuous operation occurs. During each test run, the print line shall be printing continuously and operating normally. The VOC emission reduction efficiency achieved for each test run is averaged over the entire test run period. (2) VOC concentration values at each site shall be measured simultaneously. (3) The volumetric flow rate shall be determined from one Method 2 measurement for each test run conducted immediately prior to, during, or after that test run. Volumetric flow rates at each site do not need to be measured simultaneously. (4) In order to determine capture efficiency from an affected facility, all fugitive VOC emissions from the affected facility shall be captured and vented through stacks suitable for measurement. During a performance test, the Permittee shall isolate the affected facility from other sources of VOC. These two requirements shall be accomplished using one of the following methods: (i) Build a permanent enclosure around the affected facility; (ii) Build a temporary enclosure around the affected facility and duplicate, to an extent that is reasonably feasible, the ventilation conditions that are in effect when the affected facility is not enclosed (one way to do this is to divide the room exhaust rate by the volume of the room and then duplicate that quotient or 20 air changes per hour, whichever is smaller, in the temporary enclosure); or (iii) Shut down all other sources of VOC and continue to exhaust fugitive emissions from the affected facility through any building ventilation system and other room exhausts such as print line ovens and embossers. (5) For each affected facility, compliance with 40 CFR 60.582(a)(2) has been demonstrated if the average value of the overall control efficiency (EF) for the three runs is equal to or greater than 85 percent. An overall control efficiency is calculated for each run as provided in 40 CFR 60.583(d)(5)(i) and 40 CFR 60.583(d)(5)(ii). [40 CFR 60.583(d)(5)(i), 40 CFR 60.583(d)(5)(ii), Minn. R. 7011.3150]

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5.19.31	To demonstrate compliance with 40 CFR pt 60, subp. FFF utilizing the emission reduction option, the Permittee shall calibrate, operate, and maintain a monitoring device that continuously measures and records the temperature of the control device exhaust gases and shall comply with the following requirements: (1) The continuous monitoring device shall be calibrated annually and have an accuracy within 0.75 percent of the temperature being measured, expressed in degrees Celsius, or within 2.5 degrees Celsius, whichever is greater. (2) During the performance test, the Permittee shall determine and record the average temperature of the control device exhaust gases. After the performance test, the Permittee shall determine and record, in addition to the record made by the continuous monitoring device, the average temperature for each 3-hour clock period of printing operation when the average temperature of the exhaust gases is more than 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature demonstrated during the most recent performance test. [40 CFR 60.584(b), Minn. R. 7011.3150]
5.19.32	The Permittee shall record time periods of operation when an emission control device is not in use. [40 CFR 60.584(d), Minn. R. 7011.3015]
5.19.33	The Permittee shall submit the performance test data and results from the performance test to the Administrator as specified in 40 CFR 60.8(a). [40 CFR 60.585(a), Minn. R. 7011.3150]
5.19.34	The Permittee shall submit semiannual reports to the Administrator of occurrences of drops in the incinerator temperature as defined under 40 CFR 60.584(b)(2). The reports shall be postmarked within 30 days following the end of the second and fourth calendar quarters. [40 CFR 60.585(b)(3), 40 CFR 60.585(c), Minn. R. 7011.3150]
5.19.35	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i);

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	40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. FFF, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.3150, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 33	7L, 8L, and LT3 combined BACT limit
5.20.1	The Permittee must limit emissions of Volatile Organic Compounds ≤ 136.5 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This is a total limit on emissions (not usage) for all three lines (7L, 8L, and LT3) combined. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 33. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 33. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.20.2	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC-containing material used at COMG 33. This must be based on written or electronic production records. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.20.3	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of COMG 33; 2) The VOC emissions for the previous month using the formulas specified in COMG 33; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.20.4	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.20.5	Material Content. VOC contents in materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest

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	number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.20.6	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.20.7	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 33. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 34	27 Coater Limit to avoid major modification and 40 CFR pt. 60, subp. RR
5.21.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 62.0 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described in COMG 34. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 34. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 34. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.21.2	The Permittee must limit usage of Volatile Organic Compounds $\leq$ 2,810 pounds per hour calendar month average based on records of the amount of VOC applied and hours of operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.21.3	Low VOC coatings are defined as coatings with VOC content less than 5% by weight. Low VOC coatings may be used without operation of control equipment when operating COMG 34 emission units. [Minn. R. 7007.0800, subps. 4-5]
5.21.4	Emissions from the sources in COMG 34 may be controlled by TREA 24. Control is not required for any source listed in COMG 34 but may be accounted for when demonstrating compliance with the emission limits in COMG 34. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7011.3000]
5.21.5	Recordkeeping of maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or requalification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as established in the product standard, reference

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	method 24, or alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
5.21.6	The Permittee must calculate coating emissions based on the following equation: $\text{VOC Emitted} = (\text{VOC Applied} - \text{VOC Collected}) \times (1 - \text{Overall Control Efficiency})$ Where: VOC Applied is based on the records from the coater control system and/or material usage data. VOC Collected is based on records of material recovered through process recovery and scrap. Overall Control Efficiency is equal to the product of the unit-specific capture efficiency and the pollution control efficiency determined during the most recent approved performance test for the applicable control device. During periods of deviation by the applicable control device, emissions shall be considered uncontrolled. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.21.7	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC material used at COMG 34. This must be based on written or electronic usage logs. Daily records shall include the VOC weight fraction of each material used, the total weight of material used. The VOC content shall be determined as specified under the Material Content condition listed in COMG 34. The Permittee must maintain records in written form or as computer files. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.21.8	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.21.9	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1 \times (1 - EF)) + (A2 \times B2 \times (1 - EF)) + (A3 \times B3 \times (1 - EF)) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; EF = control efficiency of TREA 24. If TREA 24 was not operated because a low VOC or water based material was used, EF = 0 for that material; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.21.10	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC

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	content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.21.11	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.21.12	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 34. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.21.13	40 CFR pt. 60, subp. RR Compliance Options: For each calendar month, the Permittee must be in compliance with Option A or B to meet the standards in 40 CFR 60.442(a) for the entire month. The Permittee may switch between Option A and B. The Permittee must keep records to show which option the Permittee is demonstrating compliance with for the calendar month and keep all applicable records for the chosen compliance option. Calculations required to show compliance must be completed by the 15th day after the end of each month. [40 CFR pt. 60, subp. RR, Minn. R. 7011.2560]
5.21.14	Option A: The Permittee must limit Volatile Organic Compounds $\geq$ 90 percent overall VOC emission reduction as calculated over a calendar month for each affected facility; or The Permittee shall demonstrate the percent overall VOC emission reduction specified in 40 CFR 60.443(b) as calculated over a calendar month. [40 CFR 60.442(a)(2), Minn. R. 7011.2560]
5.21.15	Option A Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2); $G = \frac{\sum(W_{oi} * M_{ci})}{\sum(W_{si} * M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as

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	determined from Method 24 or coating manufacturer's formulation data. [40 CFR 60.443(a), Minn. R. 7011.2560]
5.21.16	Option A Compliance: To determine compliance with 40 CFR 60.442(a)(2), the Permittee shall calculate the required overall VOC emission reduction, Rq, according to the equation in 40 CFR 60.443(b); $Rq = ((G - 0.20)/G) \times 100$ where Rq = the required overall VOC emission reduction (in percent). G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. If Rq is less than or equal to 90 percent, then the required overall VOC emission reduction is Rq. If Rq is greater than 90 percent, then the required overall VOC emission reduction is 90 percent. [40 CFR 60.443(b), Minn. R. 7011.2560]
5.21.17	Option A Monitoring: The Permittee shall compare the monthly required overall VOC emission reduction specified in 40 CFR 60.443(b) to the overall VOC emission reduction demonstrated in the most recent performance test which complied with 40 CFR 60.442(a)(2). The monthly required overall VOC emission reduction must be less than or equal to the overall VOC reduction of the most recent performance test. [40 CFR 60.443(d), Minn. R. 7011.2560]
5.21.18	Option A Monthly Records: By the 15th day of each calendar month, the Permittee shall calculate and maintain a record of the VOC percentage reduction required for the previous calendar month for COMG 34, and the actual VOC percentage reduction achieved for COMG 34. [40 CFR 60.443(f), Minn. R. 7011.2560]
5.21.19	Option A: Startups and shutdowns are normal operation for this affected facility. Emissions from these operations are to be included when determining if the standard specified at 40 CFR 60.442(a)(2) is being attained. [40 CFR 60.443(j), Minn. R. 7011.2560]
5.21.20	Option A Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.21.21	Option B: The Permittee must limit Volatile Organic Compounds ≤ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.21.22	Option B Calculations: The Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the equation in 40 CFR 60.443(a)(2): $G = \text{SUM}(W_{oi} * M_{ci}) / \text{SUM}(W_{si} * M_{ci})$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month.

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	Woi = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. Mci = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. Wsi = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.21.23	Option B Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.21.24	Option A and Option B: The Permittee shall maintain and retain records of the measurements required in 40 CFR 60.443 and 60.445 for at least two years following the date of the measurements. Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for an additional three years, for a total of five years from the date of generation. [40 CFR 60.445(h), Minn. R. 7007.0800, subp. 5(C), Minn. R. 7011.2560]
5.21.25	Option A and Option B: The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as deemed appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.21.26	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.7(f); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f);

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	40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 35	28 Coater Limit to avoid major modification
5.22.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 26.0 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in COMG 35. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 35. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement in COMG 35. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.22.2	The Permittee must limit usage of Volatile Organic Compounds $\leq$ 1,484 pounds per hour, as a calendar month average based on records of the amount of VOC applied and hours of operation. [Minn. R. 4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.22.3	Emissions from the sources in COMG 35 may be controlled by TREA 24. Control is not required for any source listed in COMG 35 but may be accounted for when demonstrating compliance with the emission limits in COMG 35. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.22.4	Recordkeeping of maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or requalification of an existing product. Documentation of maximum VOC input rate is not required for experimental runs (actual VOC as applied and emitted are required in accordance with other requirements). The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as established in the product standard, reference method 24, or alternative method approved by the Commissioner. [Minn. R. 7007.0800, subps. 4-5]
5.22.5	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at the facility. This must be based on written or electronic usage logs. Daily records shall include the VOC weight fraction of each material used, the total weight of material used. The VOC content shall be determined as specified under the Material Content condition listed in COMG 35. The Permittee must

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	maintain records in written form or as computer files. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.22.6	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.22.7	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.22.8	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.22.9	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.22.10	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 35. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 37	26 Coater Limits
5.23.1	The Permittee must limit usage of Volatile Organic Compounds $\leq$ 1,852 pounds per hour calendar month average based on records of the amount of VOC applied and hours of operation. [Minn. R.

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	4410.4300, subp. 15(A) (limit to avoid threshold), Minn. R. 7007.0800, subp. 2(B)]
5.23.2	Recordkeeping of maximum VOC usage in lb/hr shall be determined in the following manner: The Permittee shall maintain records of the maximum VOC input rate in lb/hr for all products. The Permittee shall calculate and record the maximum VOC input rate in lb/hr within 30 days of the start of production of a new saleable product or requalification of an existing product. The maximum VOC input shall be calculated by using the maximum range of parameters such as coat weight, line speed, web width, and percent VOC as required in the material content requirement in COMG 37. [Minn. R. 7007.0800, subps. 4-5]
5.23.3	Material Content. VOC contents in coating materials shall be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range shall be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
COMG 38	40 CFR pt. 63, subp. ZZZZ, Existing Emergency Compression Ignition Stationary Engine less than or equal to 500 HP
5.24.1	The Permittee must operate and maintain each stationary RICE and after-treatment control device (if any) in COMG 38 according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)(2), Minn. R. 7011.8150]
5.24.2	For each emergency stationary CI RICE, the Permittee must meet the following requirements except during periods of startup; - Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; - Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; - Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary. [40 CFR 63.6602, 40 CFR pt. 63, subp. ZZZZ, Table 2c, Minn. R. 7011.8150]
5.24.3	The Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in 40 CFR pt. 63, subp. ZZZZ, Table 2c apply. [40 CFR 63.6625(h), Minn. R. 7011.8150]
5.24.4	The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The oil analysis must be performed at the same frequency specified for changing the oil and filter in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil and filter. If any of the limits are exceeded, the Permittee must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee

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	must change the oil and filter within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i), Minn. R. 7011.8150]
5.24.5	The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR pt. 63, subp. ZZZZ that apply at all times. [40 CFR 63.6605(a), Minn. R. 7011.8150]
5.24.6	The Permittee must report each instance in which each applicable operating limitation in 40 CFR pt. 63, subp. ZZZZ, Table 2c was not met. These instances are deviations from the operating limitations in 40 CFR pt. 63, subp. ZZZZ. These deviations must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.24.7	At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b), Minn. R. 7011.8150]
5.24.8	The Permittee must demonstrate compliance by; - Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or - Develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The Permittee must keep the records required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each operating limitation that applies. [40 CFR 63.6640(a), 40 CFR 63.6655(d), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.24.9	The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3) and listed below. In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for non-emergency engines. (1) There is no time limit on the use of emergency stationary RICE in emergency situations. (2) The Permittee may operate the emergency stationary RICE for the purpose specified in 40 CFR 63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the

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	Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(1)-(3), Minn. R. 7011.8150]
5.24.10	The Permittee must keep the following records; - A copy of each notification and report submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). - Records of the occurrence and duration (in hours) of each malfunction of operation (i.e., process equipment). - Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(1), 40 CFR 63.6655(a)(2), 40 CFR 63.6655(a)(5), Minn. R. 7011.8150]
5.24.11	The Permittee must also report each instance in which they did not meet the requirements in 40 CFR pt. 63, subp. ZZZZ, Table 8 that apply. [40 CFR 63.6640(e), Minn. R. 7011.8150]
5.24.12	If the Permittee has their own maintenance plan, the Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e), Minn. R. 7011.8150]
5.24.13	The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in 40 CFR 63.6640(f)(4)(ii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), 40 CFR 63.6655(f)(1), Minn. R. 7011.8150]
5.24.14	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1); 40 CFR 63.6(c)(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3);

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	40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(3); 40 CFR 63.7(d); 40 CFR 63.7(e)(2)-(4); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.7(h); 40 CFR 63.8(a)(1)-(2); 40 CFR 63.8(b)(1)-(3); 40 CFR 63.8(c)(1); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(4); 40 CFR 63.8(c)(6)-(8); 40 CFR 63.8(d); 40 CFR 63.8(f)(1)-(3) and (5); 40 CFR 63.8(g); 40 CFR 63.9(a); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.9(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1) and (2)(i); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.6665, 40 CFR pt. 63, subp. A, 40 CFR pt. 63, subp. ZZZZ, Table 8, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8150, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
COMG 39	40 CFR pt. 63, subp. ZZZZ, Existing Spark Ignition Stationary Engines <100 HP
5.25.1	For each non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE, the Permittee must meet the following requirements except during periods of startup; a. Change oil and filter every 1,440 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; b. Inspect spark plugs every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary;

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	c. Inspect all hoses and belts every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary. [40 CFR 63.6602, 40 CFR pt. 63, subp. ZZZZ, Table 2c, Minn. R. 7011.8150]
5.25.2	The Permittee must operate and maintain each stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)(1), Minn. R. 7011.8150]
5.25.3	The Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in 40 CFR pt. 63, subp. ZZZZ, Table 2c apply. [40 CFR 63.6625(h), Minn. R. 7011.8150]
5.25.4	The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The oil analysis must be performed at the same frequency specified for changing the oil and filter in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil and filter. If any of the limits are exceeded, the Permittee must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil and filter within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(j), Minn. R. 7011.8150]
5.25.5	The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR pt. 63, subp. ZZZZ that apply at all times. [40 CFR 63.6605(a), Minn. R. 7011.8150]
5.25.6	At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b), Minn. R. 7011.8150]
5.25.7	The Permittee must demonstrate compliance by; i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The Permittee must keep the records required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each operating limitation that applies. [40 CFR 63.6640(a), 40 CFR 63.6655(d), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]

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5.25.8	The Permittee must also report each instance in which they did not meet the requirements in 40 CFR pt. 63, subp. ZZZZ, Table 8 that apply. [40 CFR 63.6640(e), Minn. R. 7011.8150]
5.25.9	The Permittee must report each instance in which each applicable operating limitation in 40 CFR pt. 63, subp. ZZZZ, Table 2c was not met. These instances are deviations from the operating limitations in 40 CFR pt. 63, subp. ZZZZ. These deviations must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.25.10	The Permittee must keep the following records; - A copy of each notification and report submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). - Records of the occurrence and duration (in hours) of each malfunction of operation (i.e., process equipment). - Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(1), 40 CFR 63.6655(a)(2), 40 CFR 63.6655(a)(5), Minn. R. 7011.8150]
5.25.11	The Permittee must keep records of the maintenance conducted on each stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e), Minn. R. 7011.8150]
5.25.12	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1); 40 CFR 63.6(c)(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(3); 40 CFR 63.7(d); 40 CFR 63.7(e)(2)-(4); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.7(h); 40 CFR 63.8(a)(1)-(2); 40 CFR 63.8(b)(1)-(3); 40 CFR 63.8(c)(1); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(4); 40 CFR 63.8(c)(6)-(8); 40 CFR 63.8(d); 40 CFR 63.8(f)(1)-(3), and (5);

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	40 CFR 63.8(g); 40 CFR 63.9(a); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.9(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1) and (2)(i); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.6665, 40 CFR pt. 63, subp. A, 40 CFR pt. 63, subp. ZZZZ, Table 8, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8150, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
COMG 40	40 CFR pt. 63, subp. FFFF and subp. UU requirements
5.26.1	The Permittee must meet each requirement in 40 CFR pt. 63, subp. FFFF, Table 6 that applies to equipment leaks, except as specified in 40 CFR 63.2480(b) through (f). [40 CFR 63.2480(a), Minn. R. 7011.8050]
5.26.2	As required in 40 CFR 63.2480, the Permittee must meet each requirement in 40 CFR pt. 63, subp. FFFF, Table 6 that applies to equipment leaks: For all equipment that is in organic HAP service and that is part of any MCPU the Permittee must comply with the requirements of 40 CFR pt. 63, subp. UU and the requirements referenced therein, except as specified in 40 CFR 63.2480(b) and (d) through (f). [40 CFR pt. 63, subp. FFFF(Table 6), Minn. R. 7011.8050]
5.26.3	Except as specified in 40 CFR 63.2480(b)(6) and (7), if the Permittee complies with 40 CFR pt. 63, subp. UU, the Permittee may elect to comply with the provisions in 40 CFR 63.2480(b)(1) through (5) as an alternative to the referenced provisions in 40 CFR pt. 63, subp. UU. (1) The requirements for pressure testing in 40 CFR 63.1036(b) may be applied to all processes, not just batch processes. (2) For the purposes of 40 CFR pt. 63, subp. FFFF, pressure testing for leaks in accordance with 40 CFR 63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are

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	the only disturbed equipment. (3) For an existing source, the Permittee is not required to develop an initial list of identification numbers for connectors as would otherwise be required under 40 CFR 63.1022(b)(1). [40 CFR 63.2480(b), 40 CFR 63.2480(b)(1)-(3), Minn. R. 7011.8050]
5.26.4	For each piece of equipment that is subject to 40 CFR pt. 63, subp. FFFF, Table 6 and is also subject to periodic monitoring with EPA Method 21 of 40 CFR pt. 60, appendix A-7, and is added to an affected source after December 17, 2019, or replaces equipment at an affected source after December 17, 2019, the Permittee must initially monitor for leaks upon initial startup of the equipment, whichever is later. Equipment that is designated as unsafe- or difficult-to-monitor is not subject to 40 CFR 63.2480(b)(7). [40 CFR 63.2480(b)(7), Minn. R. 7011.8050]
5.26.5	Pressure relief devices routed to a control device, process, fuel gas system, or drain system. (i) If all releases and potential leaks from a pressure relief device are routed through a closed vent system to a control device, back into the process, to the fuel gas system, or to a drain system, then the Permittee is not required to comply with 40 CFR 63.2480(e)(1), (2), or (3). [40 CFR 63.2445(g)(4), 40 CFR 63.2480(e)(4), Minn. R. 7011.8050]
5.26.6	Flowing pilot-operated pressure relief devices. For affected sources that commenced construction or reconstruction on or before December 17, 2019, the Permittee is prohibited from installing a flowing pilot-operated pressure relief device or replacing any pressure relief device with a flowing pilot-operated pressure relief device after August 12, 2023. For affected sources that commenced construction or reconstruction after December 17, 2019, the Permittee is prohibited from installing and operating flowing pilot-operated pressure relief devices. For purpose of compliance with 40 CFR 63.2480(e)(8), a flowing pilot-operated pressure relief device means the type of pilot-operated pressure relief device where the pilot discharge vent continuously releases emissions to the atmosphere when the pressure relief device is actuated. [40 CFR 63.2445(g)(4), 40 CFR 63.2480(e)(8), Minn. R. 7011.8050]
5.26.7	The referenced provisions specified below do not apply when demonstrating compliance with 40 CFR 63.2480; - The phrase "may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or" from 40 CFR 63.1024(f)(4)(i) of 40 CFR pt. 63, subp. UU. - 40 CFR 63.1026(b)(3) of 40 CFR pt. 63, subp. UU. - The phrase "(except periods of startup, shutdown, or malfunction)" from 40 CFR 63.1026(e)(1)(ii)(A) of 40 CFR pt. 63, subp. UU. - The phrase "(except during periods of startup, shutdown, or malfunction)" from 40 CFR 63.1028(e)(1)(i)(A) of 40 CFR pt. 63, subp. UU. - The phrase "(except during periods of startup, shutdown, or malfunction)" from 40 CFR 63.1031(b)(1) of 40 CFR pt. 63, subp. UU. [40 CFR 63.2445(g)(4), 40 CFR 63.2480(f)(18)(vii)-(xiii), 40 CFR 63.2480(f)(4)-(8), Minn. R. 7011.8050]
5.26.8	Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the Permittee must submit each report by the date in 40 CFR pt. 63, subp. FFFF, Table 11 and according to the following: -Each subsequent compliance report must cover the semiannual reporting period from January 1

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	through June 30 or the semiannual reporting period from July 1 through December 31. -Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period. -For each affected source that is subject to permitting regulations pursuant to 40 CFR pt. 70 or 40 CFR pt. 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in 40 CFR 63.2520(b)(1) through (4). [40 CFR 63.2520(b)(1)-(5), Minn. R. 7011.8050]
5.26.9	The Permittee must submit a compliance report semiannually according to the requirements in 40 CFR 63.2520(b). On and after August 12, 2023 or once the reporting template for 40 CFR pt. 63, subp. FFFF has been available on the CEDRI website for 1 year, whichever date is later, the Permittee must submit all subsequent reports following the procedure specified in 40 CFR 63.9(k), except any medium submitted through mail must be sent to the attention of the Miscellaneous Organic Chemical Manufacturing Sector Lead. The Permittee must use the appropriate electronic report template on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/cedri) for 40 CFR pt. 63, subp. FFFF. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports under 40 CFR 63.9(i) and 40 CFR 63.10(a), the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. The compliance report must contain the information specified below: -Company name and address. -Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report. If the report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement in 40 CFR 2520(e)(2). -Date of report and beginning and ending dates of the reporting period. The Permittee is no longer required to provide the date of report when the report is submitted via CEDRI. -Except as specified in 63.2480(f), applicable records and information for periodic reports as specified in referenced 40 CFR pt. 63, subp. UU. [40 CFR 63.2520(a), 40 CFR 63.2520(e), 40 CFR 63.2520(e)(1)-(3), 40 CFR 63.2520(e)(9), 40 CFR pt. 63, FFFF(Table 11), Minn. R. 7011.8050]
5.26.10	The Permittee must submit all subsequent compliance reports to the EPA via the CEDRI, which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The EPA will make all the information submitted through CEDRI available to the public without further notice to the Permittee. Do not use CEDRI to submit information claimed as CBI. Anything submitted using CEDRI cannot later be claimed to be CBI. The Permittee must use the appropriate electronic report template on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri) for 40 CFR pt. 63, subp. FFFF. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports under 40 CFR 63.9(i) and 63.10(a), the report must be submitted by the deadline specified in 40 CFR pt. 63, subp. FFFF, regardless of the method in which the report is submitted. Although we do not expect persons to assert a claim of CBI, if the Permittee wishes to assert a CBI claim, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website or an alternate electronic file consistent with the extensible markup language (XML) schema listed on

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	the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, CORE CBI Office, U.S. EPA Mailroom (C404-02), Attention: Miscellaneous Organic Chemical Manufacturing Sector Lead, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in 40 CFR 63.2520(e). All CBI claims must be asserted at the time of submission. Furthermore under CAA section 114(c) emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. [40 CFR 63.2520(a), 40 CFR 63.2520(e), 40 CFR pt. 63, subp. FFFF(Table 11), Minn. R. 7011.8050]
5.26.11	For an affected source complying with the requirements in 40 CFR pt. 63, subp. UU, the terms used in 40 CFR pt. 63, subp. FFFF and in 40 CFR pt. 63, subp. UU have the meaning given them in 40 CFR 63.1020. [40 CFR 63.2250(c), Minn. R. 7011.8050]
5.26.12	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. UU as follows: 40 CFR 63.1019; 40 CFR 63.1020; 40 CFR 63.1022(a); 40 CFR 63.1022(b)(1)-(2); 40 CFR 63.1022(b)(4)-(5); 40 CFR 63.1022(c)-(f); 40 CFR 63.1023; 40 CFR 63.1024; 40 CFR 63.1025; 40 CFR 63.1026; 40 CFR 63.1027; 40 CFR 63.1028(a)-(d); 40 CFR 63.1028(e)(1)(i)(A)-(B); 40 CFR 63.1028(e)(1)(ii)-(vi); 40 CFR 63.1028(e)(2)-(7); 40 CFR 63.1029; 40 CFR 63.1031; 40 CFR 63.1032; 40 CFR 63.1033; 40 CFR 63.1034; 40 CFR 63.1035; 40 CFR 63.1036; 40 CFR 63.1037; 40 CFR 63.1038; 40 CFR 63.1039; and 40 CFR pt. 63, subp. UU, Table 1 A copy of 40 CFR pt. 63, subp. UU is included in Appendix E. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. UU, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8200]
5.26.13	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows:

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	40 CFR 63.1;
	40 CFR 63.2;
	40 CFR 63.3;
	40 CFR 63.4;
	40 CFR 63.5;
	40 CFR 63.6(a);
	40 CFR 63.6(b)(1)-(5);
	40 CFR 63.6(b)(7);
	40 CFR 63.6(c)(1)-(2);
	40 CFR 63.6(c)(5);
	40 CFR 63.6(e)(1)(iii);
	40 CFR 63.6(f)(2)-(3);
	40 CFR 63.6(g)(1)-(3);
	40 CFR 63.6(i)(1)-(14);
	40 CFR 63.6(i)(16);
	40 CFR 63.6(j);
	40 CFR 63.7(a)(1)-(2), except substitute 150 days for 180 days;
	40 CFR 63.7(a)(3);
	40 CFR 63.7(a)(4);
	40 CFR 63.7(b)(1)-(2);
	40 CFR 63.7(c), except the test plan must be submitted with the notification of the performance test if the control device controls batch process vents;
	40 CFR 63.7(d);
	40 CFR 63.7(e)(2)-(4);
	40 CFR 63.7(f);
	40 CFR 63.7(g), except this subpart specifies how and when the performance test and performance evaluation results are reported;
	40 CFR 63.7(h);
	40 CFR 63.8(a)(1)-(2);
	40 CFR 63.8(b)(1)-(3);
	40 CFR 63.8(c)(1);
	40 CFR 63.8(c)(1)(ii);
	40 CFR 63.8(c)(2)-(3);
	40 CFR 63.8(f)(1)-(5), except the Permittee may also request approval using the precompliance report.;
	40 CFR 63.9(a);
	40 CFR 63.9(b)(1)-(5);
	40 CFR 63.9(c);
	40 CFR 63.9(d);
	40 CFR 63.9(e);
	40 CFR 63.9(h)(1)-(6), except 40 CFR 63.9(h)(2)(i)(A)-(G) and (h)(2)(ii) do not apply because 40 CFR 63.2520(d) specifies the required contents and due date of the notification of compliance status report;
	40 CFR 63.9(i);
	40 CFR 63.9(j), for change in major source status, otherwise 40 CFR 63.2520(e) specifies reporting requirements for process changes;
	40 CFR 63.9(k);
	40 CFR 63.10(a);
	40 CFR 63.10(b)(1);
	40 CFR 63.10(b)(2)(iii);
	40 CFR 63.10(b)(2)(vii)-(ix);

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	40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(4); 40 CFR 63.10(f); 40 CFR 63.11; 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15 A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.2540, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8050, Minn. R. 7011.8050, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
COMG 41	40 CFR pt. 63, subp. EEEE
5.27.1	Storage tanks and transfer racks not required to be controlled are not subject to any other notification, recordkeeping, or reporting sections in 40 CFR pt. 63, subp. EEEE including 40 CFR 63.2350(c), except as indicated in 40 CFR 63.2343(a) through (d). [40 CFR 63.2343, Minn. R. 7011.8110]
5.27.2	For each transfer rack subject to 40 CFR pt. 63, subp. EEEE that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), the Permittee must keep documentation that verifies that each transfer rack identified in 40 CFR 63.2343(a) is not required to be controlled. The documentation must be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the transfer racks identified in 40 CFR 63.2343(a) on a plant site plan or process and instrumentation diagram (P&ID). [40 CFR 63.2343(a), Minn. R. 7011.8110]
5.27.3	For each storage tank with a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in 40 CFR pt. 63, subp. EEEE, Table 2, items 1 through 6, the Permittee must comply with the requirements specified in 63.2343(b)(1) through (3). (1)(i) The Permittee must submit the information in 40 CFR 63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in 40 CFR pt. 63, subp. EEEE, Table 12, or in the first Compliance report, according to the schedule specified in 40 CFR 63.2386(b), whichever occurs first. (ii) (A) If the Permittee submits the first Compliance report before the Notification of Compliance Status, the Notification of Compliance Status must contain the information specified in 40 CFR 63.2386(d)(3) and (4) if any of the changes identified in 40 CFR 63.2343(d) have occurred since the filing of the first Compliance report. If none of the changes identified in 40 CFR 63.2343(d) have occurred since the filing of the first Compliance report, the Permittee does not need to report the information specified in 40 CFR 63.2386(c)(10)(i) when the Permittee submits the Notification of Compliance Status.

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	(B) If the Permittee submits the Notification of Compliance Status before the first Compliance report, the first Compliance report must contain the information specified in 40 CFR 63.2386(d)(3) and (4) if any of the changes specified in 40 CFR 63.2343(d) have occurred since the filing of the Notification of Compliance Status. (iii) If the Permittee is already submitting a Notification of Compliance Status or a first Compliance report under 40 CFR 63.2386(c), the Permittee does not need to submit a separate Notification of Compliance Status or first Compliance report for each storage tank that meets the conditions identified in 40 CFR 63.2343(b) (i.e., a single Notification of Compliance Status or first Compliance report should be submitted). (2)(i) The Permittee must submit a subsequent Compliance report according to the schedule in 40 CFR 63.2386(b) whenever any of the events in 40 CFR 63.2343(d) occur, as applicable. (ii) Subsequent Compliance reports must contain the information in 40 CFR 63.2386(c)(1), (2), (3) and, as applicable, in 40 CFR 63.2386(d)(3) and (4). If the Permittee is already submitting a subsequent Compliance report under 40 CFR 63.2386(d), the Permittee does not need to submit a separate subsequent Compliance report for each storage tank that meets the conditions identified in 40 CFR 63.2343(b) (i.e., a single subsequent Compliance report should be submitted). (3) For each storage tank that meets the conditions identified 40 CFR 63.2342(b), the Permittee must keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under 40 CFR pt. 63, subp. EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b)(1), including records stored in electronic form in a separate location. [40 CFR 63.2343(b)(1)-(3), Minn. R. 7011.8110]
5.27.4	The requirements specified in 40 CFR 63.2343 (b)(1) through (3) apply to the following storage tanks: (i) Storage tanks at an existing affected source subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that are not subject to control based on the criteria specified in Table 2b to this subpart, items 1 through 3. (ii) Storage tanks at a reconstructed or new affected source subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that are not subject to control based on the criteria specified in Table 2 to this subpart, items 3 through 6. [40 CFR 63.2343(b)(1)-(4), Minn. R. 7011.8110]
5.27.5	For each transfer rack that loads organic liquids but is not subject to control based on criteria specified in 40 CFR pt. 63, subp. EEEE, Table 2, items 7 through 10 (EQUIs 251 - 255), the Permittee must comply with the requirements specified in 40 CFR 63.2343(c)(1) through (3). (1) (i) The Permittee must submit the information in 40 CFR 63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in 40 CFR pt. 63, subp. EEEE, Table 12, or a first Compliance report, according to the schedule specified in 40 CFR 63.2386(b), whichever occurs first. (ii) (A) If the Permittee submits the first Compliance report before the Notification of Compliance Status, the Notification of Compliance Status must contain the information specified in 40 CFR 63.2386(d)(3) and (4) if any of the changes identified in 40 CFR 63.2343(d) have occurred since the filing of the first Compliance report. If none of the changes identified in 40 CFR 63.2343(d) have occurred since the filing of the first Compliance report, the Permittee does not need to report the information specified in 40 CFR 63.2386(c)(10)(i) when submitting the Notification of Compliance

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	Status. (B) If the Permittee submits the Notification of Compliance Status before the first Compliance report, the first Compliance report must contain the information specified in 40 CFR 63.2386(d)(3) and (4) if any of the changes specified in 40 CFR 63.2343(d) have occurred since the filing of the Notification of Compliance Status. (iii) If the Permittee is already submitting a Notification of Compliance Status or a first Compliance report under 40 CFR 63.2386(c), the Permittee does not need to submit a separate Notification of Compliance Status or first Compliance report for each transfer rack that meets the conditions identified in 40 CFR 63.2343(c) (i.e., a single Notification of Compliance Status or first Compliance report should be submitted). (2) (i) The Permittee must submit a subsequent Compliance report according to the schedule in 40 CFR 63.2386(b) whenever any of the events in 40 CFR 63.2343(d) occur, as applicable. (ii) The subsequent Compliance reports must contain the information in 40 CFR 63.2386(c)(1), (2), (3) and, as applicable, in 40 CFR 63.2386(d)(3) and (4). If the Permittee is already submitting a subsequent Compliance report under 40 CFR 63.2386(d), the Permittee does not need to submit a separate subsequent Compliance report for each transfer rack that meets the conditions identified in paragraph (c) of this section (i.e., a single subsequent Compliance report should be submitted). (3) For each transfer rack that meets the conditions identified in 40 CFR 63.2343(c), the Permittee must keep documentation, including the records specified in 40 CFR 63.2390(d), that verifies the transfer rack is not required to be controlled under this subpart. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b)(1), including records stored in electronic form in a separate location. [40 CFR 63.2343(c), Minn. R. 7011.8110]
5.27.6	If one or more of the events identified in 40 CFR 63.2343(d)(1) through (4) occur since the filing of the Notification of Compliance Status or the last Compliance report, the Permittee must submit a subsequent Compliance report as specified in 40 CFR 63.2343(b)(2) and (c)(2). (1) Any storage tank or transfer rack became subject to control under 40 CFR pt. 63, subp. EEEE; or (2) Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of 40 CFR pt. 63, subp. EEEE; or (3) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or (4) Any of the information required in 40 CFR 63.2386(c)(1), 40 CFR 63.2386(c)(2), or 40 CFR 63.2386(c)(3) has changed. [40 CFR 63.2343(d), Minn. R. 7011.8110]
5.27.7	The Permittee must submit each report according to 40 CFR pt. 63, subp. EEEE, Table 11 by the dates listed below: -Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. -Each subsequent Compliance report must be postmarked no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

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	-For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in 40 CFR 63.2386(b)(1) and (2). [40 CFR 63.2386(b)(2)-(3), Minn. R. 7011.8110]
5.27.8	Subsequent Compliance reports must contain the following applicable information: (1) Company name and address. (2) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete. If the compliance report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement. (3) Date of report and beginning and ending dates of the reporting period. The Permittee is no longer required to provide the date of report when the report is submitted via CEDRI. (10)(i) A listing of all transfer racks (except those racks at which only unloading of organic liquids occurs) and of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that are part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of 40 CFR pt. 63, subp. EEEE. [40 CFR 63.2386(c)(1)-(3), (10)(i), 40 CFR 63.2386(d), Minn. R. 7011.8110]
5.27.9	The Permittee must keep records of the total actual annual facility-level organic liquid loading volume as defined in 40 CFR 63.2406 through transfer racks to document the applicability, or lack thereof, of the emission limitations in 40 CFR pt. 63, subp. EEEE, Table 2, items 7 through 10. Total actual annual facility-level organic liquid loading volume means the total facility-level actual volume of organic liquid loaded for transport within or out of the facility through transfer racks that are part of the affected source into transport vehicles (for existing affected sources) based on a 3-year rolling average, calculated annually. For existing affected sources, each 3-year rolling average is based on actual facility-level loading volume during each calendar year (January 1 through December 31) in the 3-year period. [40 CFR 63.2390(d), 40 CFR 63.2406, Minn. R. 7011.8110]
5.27.10	(a) The records must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b)(1), including records stored in electronic form at a separate location. (b) As specified in 40 CFR 63.10(b)(1), the Permittee must keep files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (c) The Permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee may keep the records off site for the remaining 3 years. [40 CFR 63.2394, Minn. R. 7011.8110]
5.27.11	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4;

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	40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(e)(1)(iii); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i)(1)-(14); 40 CFR 63.6(j); 40 CFR 63.7(a)(2); 40 CFR 63.7(a)(3); 40 CFR 63.7(a)(4); 40 CFR 63.7(b)(1)-(2); 40 CFR 63.7(c); 40 CFR 63.7(d); 40 CFR 63.7(e)(2); 40 CFR 63.7(e)(3), however, for transfer racks per 40 CFR 63.987(b)(3)(i)(A)-(B) and 40 CFR 63.997(e)(1)(v)(A)-(B) provide exceptions to the requirement for test runs to be at least 1 hour each; 40 CFR 63.7(e)(4); 40 CFR 63.7(f); 40 CFR 63.7(g), except 40 CFR pt. 63, subp. EEEE specifies how and when the performance test and performance evaluation results are reported; 40 CFR 63.7(h); 40 CFR 63.8(a)(1)-(2); 40 CFR 63.8(b)(1); 40 CFR 63.8(b)(2)-(3); 40 CFR 63.8(c)(1); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(3); 40 CFR 63.8(f)(1)-(5), but 40 CFR pt. 63, subp. SS also provides procedures for approval of CPMS; 40 CFR 63.8(f)(6); 40 CFR 63.9(a); 40 CFR 63.9(b)(1)-(2); 40 CFR 63.9(b)(4)-(5); 40 CFR 63.9(c); 40 CFR 63.9(d); 40 CFR 63.9(e); 40 CFR 63.9(h)(1)-(6), however, (1) there are no opacity standards and (2) all initial Notification of Compliance Status, including all performance test data, are to be submitted at the same time, either within 240 days after the compliance date or within 60 days after the last performance test demonstrating compliance has been completed, whichever occurs first; 40 CFR 63.9(i); 40 CFR 63.9(j), for change to major source status, other changes are reported in the first and subsequent compliance reports; 40 CFR 63.9(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(vi)-(xi);

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	40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1)-(14); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(3); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1)-(2), except 40 CFR pt. 63, subp. EEEE specifies how and when the performance evaluation results are reported; however, COMS are not applicable; 40 CFR 63.10(e)(3)(i)-(iii), however, note that the title of the report is the compliance report; deviations include excess emissions and parameter exceedances; 40 CFR 63.10(e)(3)(iv)-(v); 40 CFR 63.10(f); 40 CFR 63.11(c); 40 CFR 63.11(d); 40 CFR 63.11(e); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.2398, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8110, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
COMG 42	40 CFR pt. 63, subp. KK
5.28.1	The Permittee shall limit applications of HAPs - Organic <= 400 kilograms per month for every month, on product and packaging rotogravure or wide-web flexographic printing presses. [40 CFR 63.821(b)(2), Minn. R. 7011.7380]
5.28.2	Each product and packaging rotogravure or wide-web flexographic printing affected source, as defined in 40 CFR 63.2, that does not comply with 40 CFR 63.821(b)(2) in any month after start-up of the affected source, starting with that month, is subject to all relevant requirements of 40 CFR pt. 63, subp. KK and is no longer eligible to use the provisions of 40 CFR 63.821(b), even if in subsequent months the affected source does comply with the criteria of 40 CFR 63.821(b)(2). [40 CFR 63.821(c), Minn. R. 7011.7380]
5.28.3	The Permittee shall maintain records as required in 40 CFR 63.829(e)(2). The Permittee shall maintain these records for five years, and upon request, submit them to the Administrator. The Permittee shall maintain records of the total mass and organic HAP content of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month. [40 CFR 63.829(e)(2), Minn. R. 7011.7380]
5.28.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1);

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	40 CFR 63.1(b)(3); 40 CFR 63.1(c)(1)-(2); 40 CFR 63.1(c)(5)-(6); 40 CFR 63.1(e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a)(1)-(2); 40 CFR 63.6(b)(1)-(5), (7); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(e)(1); 40 CFR 63.6(e)(3); 40 CFR 63.6(f); 40 CFR 63.6(g); 40 CFR 63.6(h)(1)-(9); 40 CFR 63.6(i)(1)-(9), (11); 40 CFR 63.6(j); 40 CFR 63.7(a)(2); 40 CFR 63.7(a)(2)(ix); 40 CFR 63.7(a)(3)-(4); 40 CFR 63.7(b)-(h); 40 CFR 63.8(b)(1)-(3); 40 CFR 63.8(c)-(g); 40 CFR 63.9(b)(1)-(2); 40 CFR 63.9(b)(4)-(5); 40 CFR 63.9(c)-(k); 40 CFR 63.10(a)(5)-(7); 40 CFR 63.10(b)(1)-(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1)-(5); 40 CFR 63.10(e); 40 CFR 63.10(f); 40 CFR 63.11; 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15;and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
COMG 43	ST5 Coating Line, 40 CFR pt. 60, subp. RR
5.29.1	The Permittee must limit emissions of Volatile Organic Compounds <= 50 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.

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	COMG 43 is an affected facility under 40 CFR pt. 60, subp. RR and is not subject to the emission limits of 40 CFR 60.442(a) if the inputs to the coating process are 45 Mg (50 tons) of VOC or less per 12 month period. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line will become subject to 40 CFR 60.442(a) and all other sections of 40 CFR pt. 60, subp. RR. VOC contents for each VOC-containing material must be determined as described under the Material Content requirement in COMG 43. [40 CFR 60.440(b), Minn. R. 7011.2560]
5.29.2	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at COMG 43. This must be based on written or electronic usage logs. [Minn. R. 7007.0800, subps. 4-5]
5.29.3	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record must also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.29.4	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.29.5	Material Content. VOC contents in materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.29.6	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.29.7	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case

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	contents of materials and process rates when determining the short term potential to emit of units in COMG 43. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.29.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 44	ST6 Coating Line, 40 CFR pt. 60, subp. RR
5.30.1	The Permittee must limit Volatile Organic Compounds $\leq$ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR Section 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]

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5.30.2	Monitoring: To determine compliance with 40 CFR 60.442, the Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the following equation, as listed in 40 CFR 60.443(a)(2); $G = \frac{\sum(W_{oi} * M_{ci})}{\sum(W_{si} * M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with the limit in this permit and 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.30.3	Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.30.4	Test methods and procedures. The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.30.5	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f);

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	40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 45	ST7 Coating Line, 40 CFR pt. 60, subp. RR
5.31.1	The Permittee must limit Volatile Organic Compounds ≤ 0.20 kilograms per kilograms (kg VOC emitted per kg coating solids applied) calculated as a weighted average for each calendar month. The requirement applies individually to each affected facility (coating line), as defined at 40 CFR Section 60.440(a). [40 CFR 60.442(a)(1), Minn. R. 7011.2560]
5.31.2	Monitoring: To determine compliance with 40 CFR 60.442, the Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures: (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24, or by the coating manufacturer's formulation data. (2) Compute the weighted average (G) by the following equation, as listed in 40 CFR 60.443(a)(2); $G = \frac{\sum(W_{oi} \cdot M_{ci})}{\sum(W_{si} \cdot M_{ci})}$ where G = the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month. W_{oi} = the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. M_{ci} = the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records. W_{si} = the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data. (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of

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	coating solids applied, the affected facility is in compliance with the limit in this permit and 40 CFR 60.442(a)(1). [40 CFR 60.443(a), Minn. R. 7011.2560]
5.31.3	Recordkeeping: The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings. [40 CFR 60.445(a), Minn. R. 7011.2560]
5.31.4	Test methods and procedures. The VOC content per unit of coating solids applied and compliance with 40 CFR 60.442(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require the Permittee to perform Method 24 tests during such months as appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate. [40 CFR 60.446(a), Minn. R. 7011.2560]
5.31.5	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015,

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	subp. 2, Minn. R. 7019.0100]
COMG 46	H1, 40 CFR pt. 60, subp. RR
5.32.1	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 50 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. COMG 46 is an affected facility under 40 CFR pt. 60, subp. RR and is not subject to the emission limits of 40 CFR 60.442(a) if the inputs to the coating process are 45 Mg (50 tons) of VOC or less per 12 month period. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line will become subject to 40 CFR 60.442(a) and all other sections of 40 CFR pt. 60, subp. RR. VOC contents for each VOC-containing material must be determined as described under the Material Content requirement in COMG 46. [40 CFR 60.440(b), Minn. R. 7011.2560]
5.32.2	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at COMG 46. This must be based on written or electronic usage logs. [Minn. R. 7007.0800, subps. 4-5]
5.32.3	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record must also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.32.4	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.32.5	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.32.6	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC.

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	2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.32.7	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 46. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
5.32.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 47	Flexographic Printing, 40 CFR pt. 60, subp. RR

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5.33.1	The Permittee must limit emissions of Volatile Organic Compounds ≤ 50 tons per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. COMG 46 is an affected facility under 40 CFR pt. 60, subp. RR and is not subject to the emission limits of 40 CFR 60.442(a) if the inputs to the coating process are 45 Mg (50 tons) of VOC or less per 12 month period. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line will become subject to 40 CFR 60.442(a) and all other sections of 40 CFR pt. 60, subp. RR. VOC contents for each VOC-containing material must be determined as described under the Material Content requirement in COMG 47. [40 CFR 60.440(b), Minn. R. 7011.2560]
5.33.2	Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total quantity of each coating and other VOC containing material used at COMG 47. This must be based on written or electronic usage logs. [Minn. R. 7007.0800, subps. 4-5]
5.33.3	Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following: 1) The total usage of each VOC-containing material for the previous calendar month using the daily usage records. This record must also include the VOC contents of each material as determined by the Material Content requirement of this permit; 2) The VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.33.4	Volatile Organic Compounds: Monthly Calculations. The Permittee must calculate VOC emissions using the following equations: $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ where: V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; and D# = weight percent of VOC in C#, as a fraction. [Minn. R. 7007.0800, subps. 4-5]
5.33.5	Material Content. VOC contents in coating materials must be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range must be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained must supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.33.6	Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee must either use item 1 or 2 to determine the VOC content for each credited shipment. 1) The Permittee must analyze a composite sample of each waste shipment to determine the weight content of VOC. 2) The Permittee may use supplier data for raw materials to determine the VOC contents of each waste shipment, using the same content data used to determine the content of raw materials. If the

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	waste contains several materials, the content of mixed waste must be assumed to be the lowest VOC content of any of the materials. [Minn. R. 7007.0800, subps. 4-5]
5.33.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1), (3), and (4)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.8(a)-(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(e)(1)-(8); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.13(a)-(c); 40 CFR 60.13(d)(1)-(2); 40 CFR 60.13(e)(1)-(2); 40 CFR 60.13(f); 40 CFR 60.13(g); 40 CFR 60.13(h)(1)-(3); 40 CFR 60.13(i)(1)-(9); 40 CFR 60.13(j)(1)-(2); 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.18(b)-(i); 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. RR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2560, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
5.33.8	Maximum Contents of Materials and Process Rate: The Permittee assumed certain worst-case contents of materials and process rates when determining the short term potential to emit of units in COMG 47. These assumptions are listed in Appendix B of this permit. Increasing the process rate or changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]
COMG 48	APF1, 40 CFR pt. 60, subp. VVV
5.34.1	The Permittee shall limit the usage of Volatile Organic Compounds <= 95 megagrams 12-month rolling

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	sum. If the amount of VOC used is 95 Mg or greater per 12-month period, the affected facility is subject to all the requirements of 40 CFR pt. 60, subp. VVV and the Permittee must apply for and obtain the appropriate permit amendment to add those requirements to the permit. Once an affected facility has become subject to the requirements 40 CFR pt. 60, subp. VVV, it will remain subject to those requirements regardless of changes in annual VOC use. [40 CFR 60.740(b), Minn. R. 7011.3100]
5.34.2	Volatile Organic Compounds: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of each coating and other VOC containing material used at COMG 48. This shall be based on written or electronic usage logs records. [Minn. R. 7007.0800, subps. 4-5]
5.34.3	Volatile Organic Compounds: Monthly Recordkeeping - VOC Applied. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total tons of each coating used in the previous month using the records and formulation specifications required by this permit; 2) The VOC applied in coatings for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC applied in coatings for the previous 12-month period by summing the monthly VOC application data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.34.4	Volatile Organic Compounds: Monthly Calculations - VOC Applied. The Permittee shall calculate the VOC applied in coatings, in tons/month, by the 15th of the month for the previous month using the following method: $\text{VOC} = (B1 \times M1) + (B2 \times M2) + (B3 \times M3) + \dots$ where: M# = the total mass, in tons, of each coating (#) applied during the calendar month; and B# = the weight fraction of volatile organics in coating M#. The value of B# shall be obtained from either a U.S. EPA Reference Method 24 test or manufacturer's formulation data. [Minn. R. 7007.0800, subps. 4-5]
5.34.5	The Permittee must: (1) Make semiannual estimates of the projected annual amount of VOC to be used for the manufacture of polymeric coated substrate at the affected coating operation in that year; and (2) Maintain records of actual VOC use. [40 CFR 60.744(b), Minn. R. 7011.3100]
5.34.6	The Permittee must: (1) Record semiannual estimates of projected VOC use and actual 12-month VOC use; (2) Report the first semiannual estimate in which projected annual VOC use exceeds the applicable cutoff; and (3) Report the first 12-month period in which the actual VOC use exceeds the applicable cutoff. [40 CFR 60.747(c), Minn. R. 7011.3100]
5.34.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3)-(7); 40 CFR 60.7(b); 40 CFR 60.7(c); 40 CFR 60.7(d);

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	40 CFR 60.9; 40 CFR 60.11; 40 CFR 60.12; 40 CFR 60.14; 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. VVV, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.3100, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
COMG 49	APF2, 40 CFR pt. 60, subp. VVV
5.35.1	The Permittee shall limit the usage of Volatile Organic Compounds $\leq$ 95 megagrams 12-month rolling sum. If the amount of VOC used is 95 Mg or greater per 12-month period, the affected facility is subject to all the requirements of 40 CFR pt. 60, subp. VVV and the Permittee must apply for and obtain the appropriate permit amendment to add those requirements to the permit. Once an affected facility has become subject to the requirements 40 CFR pt. 60, subp. VVV, it will remain subject to those requirements regardless of changes in annual VOC use. [40 CFR 60.740(b), Minn. R. 7011.3100]
5.35.2	Volatile Organic Compounds: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of each coating and other VOC containing material used at COMG 49. This shall be based on written or electronic usage logs records. [Minn. R. 7007.0800, subps. 4-5]
5.35.3	Volatile Organic Compounds: Monthly Recordkeeping - VOC Applied. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total tons of each coating used in the previous month using the records and formulation specifications required by this permit; 2) The VOC applied in coatings for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum VOC applied in coatings for the previous 12-month period by summing the monthly VOC application data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.35.4	Volatile Organic Compounds: Monthly Calculations - VOC Applied. The Permittee shall calculate the VOC applied in coatings, in tons/month, by the 15th of the month for the previous month using the following method: $\text{VOC} = (B1 \times M1) + (B2 \times M2) + (B3 \times M3) + \dots$ where: M# = the total mass, in tons, of each coating (#) applied during the calendar month; and B# = the weight fraction of volatile organics in coating M#. The value of B# shall be obtained from either a U.S. EPA Reference Method 24 test or manufacturer's formulation data. [Minn. R. 7007.0800, subps. 4-5]
5.35.5	The Permittee must: (1) Make semiannual estimates of the projected annual amount of VOC to be used for the manufacture of polymeric coated substrate at the affected coating operation in that year; and (2) Maintain records of actual VOC use. [40 CFR 60.744(b), Minn. R. 7011.3100]
5.35.6	The Permittee must: (1) Record semiannual estimates of projected VOC use and actual 12-month VOC use;

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	(2) Report the first semiannual estimate in which projected annual VOC use exceeds the applicable cutoff; and (3) Report the first 12-month period in which the actual VOC use exceeds the applicable cutoff. [40 CFR 60.747(c), Minn. R. 7011.3100]
5.35.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3)-(7); 40 CFR 60.7(b); 40 CFR 60.7(c); 40 CFR 60.7(d); 40 CFR 60.9; 40 CFR 60.11; 40 CFR 60.12; 40 CFR 60.14; 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. VVV, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.3100, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 1	Boiler 3
5.36.1	Filterable Particulate Matter <= 0.60 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.36.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]
5.36.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.6 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.36.4	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
5.36.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 2	Boiler 4
5.37.1	Filterable Particulate Matter <= 0.60 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.37.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]
5.37.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.6 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]

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5.37.4	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
5.37.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 10	3W Blender
5.38.1	The Permittee owns or operates existing miscellaneous coating manufacturing operations in 40 CFR pt. 63, subp. HHHHH. This includes the facility-wide collection of process vessels that are used to manufacture coatings as defined in 40 CFR 63.8105. [40 CFR 63.7985, Minn. R. 7011.8070]
5.38.2	The requirements for miscellaneous coating manufacturing sources in 40 CFR pt. 63, subp. HHHHH do not apply to operations described in 40 CFR 63.7985(d)(1) through (5) listed below. (1) Research and development facilities, as defined in section 112(c)(7) of the CAA; (2) The affiliated operations located at an affected source under 40 CFR pt. 63, subps. GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities), KK (National Emission Standards for the Printing and Publishing Industry), JJJ (NESHAP: Paper and Other Web Coating), MMM (National Emission Standards for Miscellaneous Metal Parts and Products Surface Coating Operations) and SSSS (NESHAP: Surface Coating of Metal Coil) of this part. Affiliated operations include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater; (3) Ancillary equipment such as boilers and incinerators (only those not used to comply with the emission limits in 40 CFR pt. 63, subp. HHHHH, Tables 1 through 5), chillers and refrigeration systems, and other equipment that is not directly involved in the manufacturing of a coating (i.e., it operates as a closed system, and materials are not combined with materials used to manufacture the coating); (4) Quality assurance/quality control laboratories; or (5) Modifying a purchased coating in preparation for application at the purchasing facility. [40 CFR 63.7985(d), Minn. R. 7011.8070]
5.38.3	The Permittee must be in compliance with the emission limits and work practice standards in 40 CFR pt. 63, subp. HHHHH Table 1 at all times. The Permittee must meet the requirements specified in 40 CFR 63.8000(b). The Permittee must meet the requirements specified in 40 CFR 63.8005 through 63.8030 (or the alternative means of compliance in 40 CFR 63.8050), except as specified in 40 CFR 63.8000(d). The Permittee must meet the notification, reporting, and recordkeeping requirements specified in 40 CFR 63.8070, 63.8075, and 63.8080. [40 CFR 63.8000(a)(2), Minn. R. 7011.8070]
5.38.4	For each stationary process vessel, the Permittee must equip the vessel with a cover or lid that must be in place at all times when the vessel contains a HAP, except for material additions and sampling; or the Permittee must equip the vessel with a tightly fitting vented cover or lid that must be closed at all times when the vessel contains HAP, except for material additions and sampling The Permittee must reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2 degrees Celsius if the process vessel contains HAP with a partial pressure greater than or equal to 0.6 kPa and less than 17.2 kPa. The Permittee will demonstrate compliance using the approved alternative monitoring method listed in this permit. [40 CFR pt. 63, subp. HHHHH, Table 1, Minn. R. 7011.8070]
5.38.5	Opening of a safety device, as defined in 40 CFR 63.8105, is considered a deviation, as defined in 40

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	CFR 63.8105. [40 CFR 63.8000(b)(2), Minn. R. 7011.8070]
5.38.6	Closed vent system equipment and operating requirements. (1) Collection of emissions. Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device. (2) Period of operation. Closed vent systems used to comply with 40 CFR pt. 63, subp. SS shall be operated at all times when emissions are vented to, or collected by, them. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.983(a), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.7	Closed vent system inspection and monitoring requirements. Inspection records shall be generated as specified in 40 CFR 63.998(d)(1)(iii) and (iv). (1) Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in 40 CFR 63.983(b)(2) and (3), each closed vent system shall be inspected as specified in 40 CFR 63.983(b)(1)(i) or (ii), listed below: (i) If the closed vent system is constructed of hard-piping, the Permittee shall comply with the requirements specified in 40 CFR 63.983(b)(1)(i)(A) and (B): (A) Conduct an initial inspection according to the procedures in 40 CFR 63.983(c); and (B) Conduct annual inspections for visible, audible, or olfactory indications of leaks. (ii) If the closed vent system is constructed of ductwork, the Permittee shall conduct an initial and annual inspection according to the procedures in 40 CFR 63.983(c). (2) Any parts of the closed vent system that are designated, as described in 40 CFR 63.998(d)(1)(i), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 63.983(b)(1) if the conditions of 40 CFR 63.983(b)(2)(i) and (ii) are met: (i) The Permittee determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.983(b)(1); and (ii) The Permittee has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually. (3) Any parts of the closed vent system that are designated, as described in 40 CFR 63.998(d)(1)(i), as difficult-to-inspect are exempt from the inspection requirements of 40 CFR 63.983(b)(1) if the provisions of 40 CFR 63.983(b)(3)(i) and (ii) apply: (i) The Permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and (ii) The Permittee has a written plan that requires inspection of the equipment at least once every 5 years. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.983(b), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.8	Closed vent system inspection procedures. (1) Each closed vent system shall be inspected according to the procedures listed below: (i) Inspections shall be conducted in accordance with Method 21 of 40 CFR pt. 60, appendix A, except

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	as specified in 40 CFR 63.983(c). (ii) Except as provided in 40 CFR 63.983(c)(1)(iii), the detection instrument shall meet the performance criteria of Method 21 of 40 CFR pt. 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 must be for the representative composition of the process fluid and not of each individual VOC in the stream. For process streams that contain nitrogen, air, water, or other inerts that are not organic HAP or VOC, the representative stream response factor must be determined on an inert-free basis. The response factor may be determined at any concentration for which the monitoring for leaks will be conducted. (iii) If no instrument is available at the plant site that will meet the performance criteria of Method 21 specified in 40 CFR 63.983(c)(1)(ii), the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in 40 CFR 63.983(c)(1)(ii). (iv) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR pt. 60, appendix A. (v) Calibration gases shall be as specified in 40 CFR 63.983(c)(1)(v)(A) through (C): (A) Zero air (less than 10 parts per million hydrocarbon in air); and (B) Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (c)(1)(ii) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air. (C) If the detection instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,500 parts per million. (vi) The Permittee may elect to adjust or not adjust instrument readings for background. If the Permittee elects not to adjust readings for background, all such instrument readings shall be compared directly to 500 parts per million to determine whether there is a leak. If the Permittee elects to adjust instrument readings for background, the Permittee shall measure background concentration using the procedures in 40 CFR 63.983(c). The Permittee shall subtract the background reading from the maximum concentration indicated by the instrument. (vii) If the Permittee elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining whether there is a leak. (2) The instrument probe shall be traversed around all potential leak interfaces as described in Method 21 of 40 CFR pt. 60, appendix A. (3) Inspections shall be performed when the equipment is in regulated material service, or in use with any other detectable gas or vapor. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.983(c), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.9	Closed vent system leak repair provisions. (1) If there are visible, audible, or olfactory indications of leaks at the time of the annual visual

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	inspections required by 40 CFR 63.983(b)(1)(i)(B), the Permittee shall follow the procedure specified in either 40 CFR 63.983(d)(1)(i) or (ii): (i) The Permittee shall eliminate the leak. (ii) The Permittee shall monitor the equipment according to the procedures in 40 CFR 63.983(c). (2) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical, except as provided in 40 CFR 63.983(d)(3). Records shall be generated as specified in 40 CFR 63.998(d)(1)(iii) when a leak is detected. (i) A first attempt at repair shall be made no later than 5 days after the leak is detected. (ii) Except as provided in 40 CFR 63.983(d)(3), repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later. (3) Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in 40 CFR 63.981, or if the Permittee determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.983(d), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.10	Continuous records. Where 40 CFR pt. 63, subp. SS requires a continuous record, the Permittee shall maintain a record as specified in 40 CFR 63.998(b)(1)(i) through (iv), as applicable: (i) A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or (ii) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute. (iii) Where data is collected from an automated continuous parameter monitoring system, the Permittee may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system. (iv) A record as required by an alternative approved under a referencing subpart. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.998(b)(1), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.11	Excluded data. Monitoring data recorded during periods identified below shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart. (i) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments; and (ii) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies. [40 CFR 63.8000(c)(1), 40 CFR 63.8000(d)(6), 40 CFR 63.982(c), 40 CFR 63.998(b)(2)(i) and (ii), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.12	Records of daily averages. The Permittee shall keep records as specified in 40 CFR 63.998(b)(3)(i) and

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	(ii) and submit reports as specified in 40 CFR 63.999(c), unless an alternative recordkeeping system has been requested and approved under a referencing subpart. (i) Except as specified in 40 CFR 63.998(b)(3)(ii), daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of 40 CFR 63.998(b)(2) for each operating day and retained for 5 years. (A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values. (B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period. (ii) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or in the operating permit, the Permittee may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the Permittee may not discard the recorded values as allowed in 40 CFR 63.998(b)(1)(iii). [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.998(b)(3), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.13	For closed vent systems collecting regulated material from a regulated source, the Permittee shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by 40 CFR 63.983(b)(2)(ii) or (iii). [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.998(d)(1)(i), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.14	For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in 40 CFR 63.983(d)(2), the information specified in 40 CFR 63.998(d)(1)(iii)(A) through (F) shall be recorded and kept for 5 years. (A) The instrument and the equipment identification number and the operator name, initials, or identification number. (B) The date the leak was detected and the date of the first attempt to repair the leak. (C) The date of successful repair of the leak. (D) The maximum instrument reading measured by the procedures in Â§ 63.983(c) after the leak is successfully repaired or determined to be nonrepairable. (E) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. (F) Copies of the Periodic Reports as specified in 40 CFR 63.999(c), if records are not maintained on a computerized database capable of generating summary reports from the records. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.998(d)(1)(iii), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.15	For each instrumental or visual inspection conducted in accordance with 40 CFR 63.983(b)(1) for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the Permittee shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.998(d)(1)(iv), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.16	For closed vent systems subject to the requirements of 40 CFR 63.983, the Permittee shall submit as

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	part of the periodic report the information specified in 40 CFR 63.999(c)(2)(i) through (iii) , as applicable. (i) The information recorded in 40 CFR 63.998(d)(1)(iii)(B) through (E); (ii) Reports of the times of all periods recorded under 40 CFR 63.998(d)(1)(ii)(A) when the vent stream is diverted from the control device through a bypass line; and (iii) Reports of all times recorded under 40 CFR 63.998(d)(1)(ii)(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.999(c)(2), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.38.17	Continuous parameter monitoring. The provisions below apply in addition to the requirements for continuous parameter monitoring system (CPMS) in 40 CFR pt. 63, subp. SS. (i) The Permittee must record the results of each calibration check and all maintenance performed on the CPMS as specified in 40 CFR 63.998(c)(1)(ii)(A). (ii) When 40 CFR pt. 63, subp. SS uses the term a range or operating range of a monitored parameter, it means an operating limit for a monitored parameter for the purposes of 40 CFR pt. 63, subp. SS. [40 CFR 63.8000(d)(5)(i) and (ii), Minn. R. 7011.8070]
5.38.18	Reporting. (i) When 40 CFR 63.8005 through 63.8025 reference other subparts in 40 CFR pt. 63, subp. HHHHH that use the term periodic report, it means compliance report for the purposes of 40 CFR pt. 63, subp. HHHHH. (ii) When there are conflicts between 40 CFR pt. 63, subp. HHHHH and referenced subparts for the due dates of reports required by 40 CFR pt.63, subp. HHHHH, reports must be submitted according to the due dates presented in 40 CFR pt. 63, subp. HHHHH. (iii) Excused excursions, as defined in 40 CFR pt. 63, subp. SS, are not allowed. [40 CFR 63.8000(d)(7), Minn. R. 7011.8070]
5.38.19	The Permittee must meet each emission limit and work practice standard in 40 CFR pt. 63, subp. HHHHH, Table 1 that applies, and the Permittee must meet each applicable requirement specified in 40 CFR 63.8000(b), except as specified in 40 CFR 63.8005(a)(1)(i) and (iii) (listed below). (i) Except as provided in 40 CFR 63.8005(a)(1)(iii), the Permittee is not required to meet the emission limits and work practice standards in 40 FCR pt. 63, subp. HHHHH, Table 1 if the Permittee complies with 40 CFR 63.8050 or 63.8055. (ii) The Permittee must meet the emission limits and work practice standards in 40 CFR pt. 63, subp. HHHHH, Table 1 for emissions from automatic cleaning operations. The Permittee is not required to meet the emission limits and work practice standards in 40 CFR pt. 63, subp. HHHHH, Table 1 for emissions from cleaning operations that are conducted manually. (iii) The Permittee must meet the inorganic HAP emissions limit in 40 CFR pt. 63, subp. HHHHH, Table 1 during the addition of material containing metal HAP to a process vessel. The Permittee is not required to meet this limit for the addition of pigments and other solids that are in paste, slurry, or liquid form. [40 CFR 63.8005(a)(1), Minn. R. 7011.8070]

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5.38.20	TREA 22 is used to comply with 40 CFR pt. 63, subp. HHHHH, Table 1 and the Permittee must comply with 40 CFR pt. 63, subp. SS as specified in 40 CFR 63.8000(c), except as specified in 40 CFR 63.8000(d) and (f) and 40 CFR 63.8005(b) through (g). [40 CFR 63.8005(a)(2), Minn. R. 7011.8070]
5.38.21	When 40 CFR pt.63, subp. SS refers to process vents, it means process vessel vents for the purposes of 40 CFR pt. 63, subp. HHHHH. [40 CFR 63.8005(b), Minn. R. 7011.8070]
5.38.22	If flow to a control device could be intermittent or bypassed, the Permittee must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow, or the Permittee must comply with the alternatives requirements of 40 CFR 63.8005(g)(1) or (2) (listed below). Periods of no flow may not be used in daily or block averages. The Permittee must perform a flow meter verification check annually for at least two points: One at the instrument's zero and the other at the instrument's span. (1) The Permittee must use a valve position or bypass damper position indicator that provides a continuous reading and record of the bypass valve or damper position when the control device is in operation. The Permittee must inspect the monitoring system semiannually to verify that the monitor will indicate valve position. (2) The Permittee must secure the bypass line valve or bypass damper in the non-diverting position with a car-seal or a lock-and-key type configuration. The Permittee must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the non-diverting position and that the vent stream is not diverted through the bypass line. The Permittee must also record the occurrence of all periods when the seal or closure mechanism is broken, or the key for a lock-and-key type lock has been checked out. [40 CFR 63.8005(g), Minn. R. 7011.8070]
5.38.23	As an alternative to complying with the requirements in 40 CFR pt. 63, subp. HHHHH, Table 1 for each individual stationary process vessel, the Permittee may elect to comply with a 5 weight percent HAP limit for process vessels that are used to manufacture coatings with a HAP content of less than 0.05 kg per kg product as specified in 40 CFR 63.8055(b). [40 CFR 63.8055(a), Minn. R. 7011.8070]
5.38.24	The Permittee may only comply with the alternative during the production of coatings that contain less than 5 weight percent HAP, as determined using any of the procedures specified in 40 CFR 63.8055 (b)(1) through (4). (1) Method 311 (40 CFR pt. 63, appendix A). As an alternative to Method 311, the Permittee may use California Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds (ROC) in Aerosol Coating Products (incorporated by reference, see 40 CFR 63.14) for use with aerosol cans. (2) Method 24 (40 CFR pt. 60, appendix A). The Permittee may use Method 24 to determine the mass fraction of volatile matter and use that value as a substitute for the mass fraction of HAP, or one of the alternatives in 40 CFR 63.8055(b)(2)(i) through (iii). (i) ASTM D2369-10 (Reapproved 2015)e1, (incorporated by reference, see 40 CFR 63.14); (ii) ASTM D2697-03 (Reapproved 2014) (incorporated by reference, see 40 CFR 63.14); or (iii) ASTM D3960-98 (incorporated by reference, see 40 CFR 63.14). (3) The Permittee may use an alternative test method for determining mass fraction of HAP if the Permittee obtains prior approval by the Administrator. The Permittee must follow the procedure in 40 CFR 63.7(f) to submit an alternative test method for approval. (4) The Permittee may rely on formulation data from raw material suppliers if it represents each organic HAP that is present at 0.1 percent by mass or more for the HAP listed in 40 CFR pt. 63, subp. HHHHH, Table 11, and at 1.0 percent by mass or more for other compounds. If the HAP weight percent estimated based on formulation data conflicts with the results of a test conducted according to 40 CFR 63.8055(b)(1) through (3), then there is a rebuttal presumption that the test results are accurate unless, after consultation, the Permittee demonstrates to the satisfaction of the permitting authority that the test results are not accurate and that the formulation data are more appropriate.

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	[40 CFR 63.8055(b), Minn. R. 7011.8070]
5.38.25	The Permittee must submit all of the notifications in 40 CFR 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.8070(a), Minn. R. 7011.8070]
5.38.26	The Permittee must submit a compliance report: Due semiannually, by the 30th of January and July. If the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in 40 CFR pt. HHHHH, Table 9. Each subsequent compliance report must cover the 6-month period following the preceding period. The compliance report must contain the information specified below: - Company name and address. - Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report. - Date of report and beginning and ending dates of the reporting period. - The compliance report must contain the information on deviations, as defined in 40 CFR 63.8105, according to the requirements listed below: - If there are no deviations from any emission limit, operating limit, or work practice standard specified in 40 CFR pt. 63, subp. HHHHH, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period. - For each deviation from an emission limit, operating limit, and work practice standard the Permittee must include the information listed below: (A) The total operating time of each affected source during the reporting period. (B) Report the number of failures to meet an applicable standard. For each instance, report the date, time, and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions, and the cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. (C) Operating logs for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks. (D) Report the total bypass hours, as monitored according to the provisions of 40 CFR 63.8080(h). [40 CFR 63.8075(a), 40 CFR 63.8075(b), 40 CFR 63.8075(e), 40 CFR pt. 63, subp. HHHHH, Table 9, Minn. R. 7011.8070]
5.38.27	Except as specified in 40 CFR 63.8075(e)(8)(ii), whenever the Permittee changes any of the information submitted in either the notification of compliance status report or any previously reported change to the notification of compliance status report, the Permittee must document the change in the compliance report. The notification must include all of the information in 40 CFR 63.8075(e)(8)(i)(A) and (B) (listed below). (A) Revisions to any of the information reported in the original notification of compliance status report under 40 CFR 63.8075(d). (B) Information required by the notification of compliance status report under 40 CFR 63.8075(d) for changes involving the addition of processes or equipment at the affected source. [40 CFR 63.8075(a), 40 CFR 63.8075(e)(8), 40 CFR pt. 63, subp. HHHHH, Table 9, Minn. R. 7011.8070]
5.38.28	The Permittee must submit a report 60 days before the scheduled implementation date of any of the changes identified in 40 CFR 63.8075(e)(8)(ii) (listed below): - Any change to the information contained in either the precompliance report or any previously

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	reported change to the precompliance report. - A change in compliance status. [40 CFR 63.8075(a), 40 CFR 63.8075(e)(8(ii)), 40 CFR pt. 63, subp. HHHHH, Table 9, Minn. R. 7011.8070]
5.38.29	The Permittee must submit a notification of compliance status report according to the schedule in 40 CFR 63.8075(d)(1) (listed below), and the notification of compliance status report must include the information specified in 40 CFR 63.8075(d)(2) (listed below). (1) The Permittee must submit a notification of compliance status report. (2) The notification of compliance status report must include the information listed below: (i) The results of any applicability determinations (e.g., HAP content of coating products; halogenated vent stream determinations; group determinations for storage tanks, wastewater, and transfer operations; and equipment that is in organic HAP service). (ii) The results of performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate compliance according to 40 CFR 63.8005 through 63.8030 and 40 CFR 63.8055. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures. (iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels the Permittee establishes. (iv) Identification of parts of the affected source that are subject to overlapping requirements described in 40 CFR 63.8090 and the authority under which the Permittee will comply. [40 CFR 63.8075(a), 40 CFR 63.8075(d), 40 CFR pt. 63, subp. HHHHH, Table 9, Minn. R. 7011.8070]
5.38.30	The Permittee must submit to the Administrator initial compliance reports, notification of compliance status reports, and compliance reports of the following information. The Permittee must submit all subsequent reports following the procedure specified in 40 CFR 63.8075(i). [40 CFR 63.8075(h), Minn. R. 7011.8070]
5.38.31	The Permittee must submit reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (https://cdx.epa.gov). (1) Compliance reports. The requirements of 40 CFR 63.8075(i) do not affect the schedule for submitting the initial notification or the notification of compliance status reports. The Permittee must use the appropriate electronic compliance report template on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri) for this subpart. The date report templates become available will be listed on the CEDRI website. (2) Initial notification reports and notification of compliance status reports. The Permittee must upload to CEDRI a portable document format (PDF) file of each initial notification and of each notification of compliance status. (3) All reports. Reports must be submitted by the deadline specified in 40 CFR pt. 63, subp. HHHHH, regardless of the method in which the report is submitted. If the Permittee claims some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website, where applicable. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described in this paragraph (i). [40 CFR 63.8075(i), Minn. R. 7011.8070]
5.38.32	The Permittee may assert a claim of EPA system outage for failure to timely comply with the reporting

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	requirement in 40 CFR pt. 63, subp. HHHHH. To assert a claim of EPA system outage, the Permittee must meet the requirements outlined in 40 CFR 63.8075(j)(1) through (7) (listed below). (1) The Permittee must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems. (2) The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due. (3) The outage may be planned or unplanned. (4) The Permittee must submit notification to the Administrator in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. (5) The Permittee must provide to the Administrator a written description identifying: (i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable; (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage; (iii) Measures taken or to be taken to minimize the delay in reporting; and (iv) The date by which the Permittee proposes to report, or if the Permittee has already met the reporting requirement at the time of the notification, the date the Permittee reported. (6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. [40 CFR 63.8075(j), Minn. R. 7011.8070]
5.38.33	The Permittee may assert a claim of force majeure for failure to timely comply with the reporting requirement in 40 CFR pt. 63, subp. HHHHH. To assert a claim of force majeure, the Permittee must meet the requirements outlined in 40 CFR 63.8075(k)(1) through (5). (1) The Permittee may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For purposes of 40 CFR 63.8075, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the Permittee from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). (2) The Permittee must submit notification to the Administrator in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (3) The Permittee must provide to the Administrator: (i) A written description of the force majeure event; (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; (iii) Measures taken or to be taken to minimize the delay in reporting; and (iv) The date by which the Permittee proposes to report, or if the Permittee has already met the reporting requirement at the time of the notification, the date the Permittee reported. (4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. [40 CFR 63.8075(k), Minn. R. 7011.8070]

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5.38.34	The Permittee must keep the records listed below: - Each applicable record required by 40 CFR pt. 63, subp. A. - If complying with emissions averaging, records of the monthly number of batches for each process vessel, the quarterly actual emissions for each process vessel, and comparison of the sums of the quarterly actual and estimated emissions as specified in 40 CFR 63.8050(d). - Each time a safety device is opened to avoid unsafe conditions, a record of the information listed below: (1) The source, nature, and cause of the opening. (2) The date, time, and duration of the opening. (3) An estimate of the quantity of total HAP emitted during the opening and the method used for determining this quantity. - Any records required to be maintained by 40 CFR pt. 63, subp. HHHHH that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 63.8080, Minn. R. 7011.8070]
5.38.35	As approved as an alternative monitoring method, the Permittee must monitor the condenser ethylene glycol chiller return temperature (condenser shell side outlet). A resistance temperature detector (RTD) must be used to measure temperature of the ethylene glycol at the chiller return. The Permittee must operate the condenser and RTD to ensure the chiller return is -12 deg. C or lower. [40 CFR 63.2, 40 CFR 63.8(f)(4)(i) and (ii)]
5.38.36	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1); 40 CFR 63.6(c)(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(e)(1)(iii)-(2); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i)(1)-(14); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(2)), except substitute 150 days for 180 days; 40 CFR 63.7(a)(3)-(4); 40 CFR 63.7(b)(1)-(2); 40 CFR 63.7(c); 40 CFR 63.7(d); 40 CFR 63.7(e)(2)-(3); 40 CFR 63.7(f); 40 CFR 63.7(g);

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	40 CFR 63.7(h); 40 CFR 63.8(a)(1)-(2), (4); 40 CFR 63.8(b)(1)-(3); 40 CFR 63.8(c)(1)(ii)-(3); 40 CFR 63.8(c)(4)(ii); 40 CFR 63.8(c)(6)-(8); 40 CFR 63.8(d)(1)-(2); 40 CFR 63.8(e), except 40 CFR 63.8(e)(6)(ii); 40 CFR 63.8(f); 40 CFR 63.8(g)(1)-(4); 40 CFR 63.9(a); 40 CFR 63.9(b)(1)-(5); 40 CFR 63.9(c); 40 CFR 63.9(d); 40 CFR 63.9(e); 40 CFR 63.9(g); 40 CFR 63.9(h)(1), (3)-(6); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.9(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(vi); 40 CFR 63.10(b)(2)(x); 40 CFR 63.10(b)(2)(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1)-(6),(9)-(14); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1)-(2); 40 CFR 63.10(f); 40 CFR 63.11; 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.8095, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8070, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
EQUI 44	Boiler 5
5.39.1	The Permittee must limit usage of Natural Gas <= 331 million cubic feet per year 12-month rolling

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	sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to all natural gas used in EQUI 44. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.39.2	Natural Gas: Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total cubic feet of natural gas used. This must be based on fuel usage meter readings. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.39.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.39.4	Natural Gas: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following: 1) The total cubic feet of natural gas used for the previous calendar month using the daily records; and 2) The 12-month rolling sum of total cubic feet of natural gas used for the previous 12-month period by summing the monthly total cubic feet of natural gas used for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.39.5	Filterable Particulate Matter $\leq$ 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.39.6	Opacity $\leq$ 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.39.7	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 105	19J Extruder
5.40.1	The Permittee must limit the Process Throughput $\leq$ 3,000 pounds per hour calendar month average. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.40.2	Daily Recordkeeping: Each operating day, the Permittee shall keep complete and detailed records of all raw material extruded to demonstrate that the maximum operating rate of the extruder does not exceed the applicable limit. Records shall also include the VOC and solids content of raw materials as determined using the Material Content provision below. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.40.3	Process Throughput: Monthly Recordkeeping. By the 15th day of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily records; and 2) The calendar month average process throughput for the previous calendar month. [Minn. R. 7007.0800, subps. 4-5]
5.40.4	The Permittee must limit emissions of Particulate Matter $\leq$ 3.31 pounds per hour, 3-run average (run duration specified in test method). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.40.5	The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 3.31 pounds per hour 3-run average (run duration specified in test method). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.40.6	The Permittee must limit of emissions of PM $<$ 10 micron $\leq$ 3.31 pounds per hour, 3-run average (run duration specified in test method). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.40.7	Material Content: VOC and solids contents in materials used shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC and solids

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	contents. The Commissioner reserves the right to require the Permittee to determine the VOC and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.40.8	The Permittee must vent emissions from EQUI 105 to control equipment meeting the requirements of TREA 13 whenever EQUI 105 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
EQUI 195	10J Extruder
5.41.1	The Permittee must limit emissions of Particulate Matter ≤ 1.39 pounds per hour, 3-run average (run duration specified in test method). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.41.2	The Permittee must limit emissions of PM < 10 micron ≤ 1.39 pounds per hour, 3-run average (run duration specified in test method). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.41.3	The Permittee must limit emissions of Volatile Organic Compounds ≤ 1.39 pounds per hour, 3-run average (run duration specified in test method). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.41.4	Daily Recordkeeping: Each operating day, the Permittee shall keep complete and detailed records of all raw material extruded to demonstrate that the maximum operating rate of the extruder does not exceed the applicable limit. Records shall also include the VOC and solids content of raw materials as determined using the Material Content provision below. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.41.5	The Permittee must limit the Process Throughput ≤ 110 percent of the maximum demonstrated process throughput recorded during the most recent MPCA-approved performance test where compliance was demonstrated with the PM, PM ₁₀ , and VOC limits that apply to EQUI 195. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.41.6	Material Content: VOC and solids contents in materials used shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.41.7	Process Throughput: Monthly Recordkeeping. By the 15th day of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily records; and 2) The calendar month average process throughput for the previous calendar month. [Minn. R. 7007.0800, subps. 4-5]
5.41.8	The Permittee must vent emissions from EQUI 195 to control equipment meeting the requirements of TREA 10 whenever EQUI 195 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
EQUI 230	GEN-35
5.42.1	Opacity ≤ 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.42.2	Sulfur Dioxide ≤ 0.0015 pounds per million Btu heat input. The potential to emit from the unit is

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	0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.42.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.42.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.42.5	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 232	GEN-KOHLER
5.43.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.43.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.43.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.43.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.43.5	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.43.6	For each emergency SI RICE, the Permittee must meet the following requirements except during periods of startup; a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; b. Inspect spark plugs every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary. [40 CFR 63.6602, 40 CFR pt. 63, subp. ZZZZ, Table 2c, Minn. R. 7011.8150]
5.43.7	The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)(2), Minn. R. 7011.8150]
5.43.8	The Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]
5.43.9	The Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in 40 CFR pt. 63, subp. ZZZZ, Table 2c apply. [40 CFR 63.6625(h), Minn. R. 7011.8150]
5.43.10	The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The oil analysis must be performed at the same frequency specified for changing the oil and filter in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than

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	0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil and filter. If any of the limits are exceeded, the Permittee must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil and filter within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(j), Minn. R. 7011.8150]
5.43.11	The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR pt. 63, subp. ZZZZ that apply at all times. [40 CFR 63.6605(a), Minn. R. 7011.8150]
5.43.12	At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b), Minn. R. 7011.8150]
5.43.13	The Permittee must demonstrate compliance by; i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The Permittee must keep the records required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each operating limitation that applies. [40 CFR 63.6640(a), 40 CFR 63.6655(d), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.43.14	The Permittee must report each instance in which each applicable operating limitation in 40 CFR pt. 63, subp. ZZZZ, Table 2c was not met. These instances are deviations from the operating limitations in 40 CFR pt. 63, subp. ZZZZ. These deviations must be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.43.15	The Permittee must also report each instance in which they did not meet the requirements in 40 CFR pt. 63, subp. ZZZZ, Table 8 that apply. [40 CFR 63.6640(e), Minn. R. 7011.8150]
5.43.16	The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3) and listed below. In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for non-emergency engines. (1) There is no time limit on the use of emergency stationary RICE in emergency situations. (2) The Permittee may operate the emergency stationary RICE for the purpose specified in 40 CFR 63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year

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	allowed by 40 CFR 63.6640(f)(2). (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(1)-(3), Minn. R. 7011.8150]
5.43.17	The Permittee must keep the following records; - A copy of each notification and report submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). - Records of the occurrence and duration (in hours) of each malfunction of operation (i.e., process equipment). - Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(1), 40 CFR 63.6655(a)(2), 40 CFR 63.6655(a)(5), Minn. R. 7011.8150]
5.43.18	If the Permittee has their own maintenance plan, the Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e), Minn. R. 7011.8150]
5.43.19	The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in 40 CFR 63.6640(f)(4)(ii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), 40 CFR 63.6655(f)(1), Minn. R. 7011.8150]
5.43.20	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1);

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	40 CFR 63.6(c)(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(3); 40 CFR 63.7(d); 40 CFR 63.7(e)(2)-(4); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.7(h); 40 CFR 63.8(a)(1)-(2); 40 CFR 63.8(b)(1)-(3); 40 CFR 63.8(c)(1); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(4); 40 CFR 63.8(c)(6)-(8); 40 CFR 63.8(d); 40 CFR 63.8(f)(1)-(3) and (5); 40 CFR 63.8(g); 40 CFR 63.9(a); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.9(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1) and (2)(i); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix D. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.6665, 40 CFR pt. 63, subp. A, 40 CFR pt. 63, subp. ZZZZ, Table 8, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8150, Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
EQUI 233	GEN-31
5.44.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300,

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	subp. 1]
5.44.2	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.44.3	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.44.4	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 234	GEN-33
5.45.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.45.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.45.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.45.4	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 235	GEN-15
5.46.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.46.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300, subp. 2(B)]
5.46.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.46.4	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.46.5	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.46.6	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
EQUI 236	GEN-16
5.47.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.47.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.47.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.47.4	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 237	GEN-32
5.48.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.48.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.48.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.48.4	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]

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EQUI 238	Fire Pump 1
5.49.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.49.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300, subp. 2(B)]
5.49.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.49.4	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.49.5	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency engine by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.49.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
EQUI 239	Fire Pump 2
5.50.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.50.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300, subp. 2(B)]
5.50.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.50.4	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.50.5	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency engine by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.50.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
EQUI 256	GEN-14
5.51.1	The Permittee shall limit Nitrogen Oxides <= 2.0 grams per horsepower-hour. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ, Table 1, Minn. R. 7011.2310]
5.51.2	The Permittee shall limit Carbon Monoxide <= 4.0 grams per horsepower-hour. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ, Table 1, Minn. R. 7011.2310]
5.51.3	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.51.4	The Permittee shall limit Volatile Organic Compounds <= 1.0 grams per horsepower-hour. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ, Table 1, Minn. R. 7011.2310]
5.51.5	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.51.6	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
5.51.7	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.51.8	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R.

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	7007.0800, subp. 5]
5.51.9	At the time of permit issuance, EQUI 256 is considered a new affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(2)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(1)(i) so no requirements of 40 CFR pt. 63, subps. A and ZZZZ, except the initial notification requirements of 40 CFR 63.6645(f), apply. [40 CFR 63.6590(a)(2)(i) and (b)(1)(i), Minn. R. 7011.8150]
5.51.10	The Permittee must operate and maintain stationary SI ICE that achieves the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. [40 CFR 60.4234, Minn. R. 7011.2310]
5.51.11	The Permittee must install a non-resettable hour meter. [40 CFR 60.4237(a), Minn. R. 7011.2310]
5.51.12	The Permittee may not install engines that do not meet the applicable requirements in 40 CFR 60.4233. [40 CFR 60.4236(c), Minn. R. 7011.2310]
5.51.13	The Permittee must demonstrate compliance by purchasing an engine certified according to procedures specified in 40 CFR pt. 60, subp. JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a) (listed below). The Permittee must operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, and keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The Permittee must also meet the requirements as specified in 40 CFR pt. 1068, subp. A through D, as they apply. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, EQUI 256 will not be considered out of compliance. [40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1), Minn. R. 7011.2310]
5.51.14	The Permittee must operate EQUI 256 according to 40 CFR 60.4243(d)(1) through (3) (listed below). In order for the engine to be considered an emergency stationary ICE under 40 CFR pt. 60, subp. JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4243(d)(1) through (3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR 60.4243(d)(1) through (3), the engine will not be considered an emergency engine under 40 CFR pt. 60, subp. JJJJ and must meet all requirements for non-emergency engines. (1) There is no time limit on the use of emergency stationary ICE in emergency situations. (2) The Permittee may operate EQUI 256 for the purpose specified in 40 CFR 60.4243(d)(2)(i) (listed below) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4243(d)(2). (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial

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	arrangement with another entity. (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. (D) The power is provided only to the facility itself or to support the local transmission and distribution system. (E) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee. [40 CFR 60.4243(d), Minn. R. 7011.2310]
5.51.15	The Permittee may operate EQUI 256 using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee is required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. [40 CFR 60.4243(e), Minn. R. 7011.2310]
5.51.16	The Permittee must keep records of the information in 40 CFR 60.4245(a)(1) through (3) (listed below). (1) All notifications submitted to comply with 40 CFR pt. 60, subp. JJJJ and all documentation supporting any notification. (2) Maintenance conducted on EQUI 256. (3) Documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR pt. 90, 1048, 1054, and 1060, as applicable. [40 CFR 60.4245(a)(1), (2), and (3), Minn. R. 7011.2310]
5.51.17	The Permittee must keep records of the hours of operation of EQUI 256 that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 60.4245(b), Minn. R. 7011.2310]
5.51.18	If EQUI 256 operates for the purposes specified in 40 CFR 60.4243(d)(3)(i), the Permittee must submit an annual report according to the requirements in 40 CFR 60.4245(e)(1) through (3). The report must contain the following information: - Company name and address where the engine is located. - Date of the report and beginning and ending dates of the reporting period. - Engine site rating and model year. - Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. - Hours spent for operation for the purposes specified in 40 CFR 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [40 CFR 60.4245(e)(1), Minn. R. 7011.2310]
5.51.19	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:

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	40 CFR 60.1; 40 CFR 60.2, additional terms defined in 40 CFR 60.4248; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6; 40 CFR 60.7, only as specified in 40 CFR 60.4245; 40 CFR 60.9; 40 CFR 60.10; 40 CFR 60.11; 40 CFR 60.12; 40 CFR 60.14; 40 CFR 60.15; 40 CFR 60.16; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 60.4246, 40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. JJJ, Table 3, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2310, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 274	North Plant Emergency Generator
5.52.1	The Permittee shall limit Nitrogen Oxides <= 2.0 grams per horsepower-hour. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ, Table 1, Minn. R. 7011.2310]
5.52.2	The Permittee shall limit Carbon Monoxide <= 4.0 grams per horsepower-hour. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ, Table 1, Minn. R. 7011.2310]
5.52.3	The Permittee shall limit Volatile Organic Compounds <= 1.0 grams per horsepower-hour. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ, Table 1, Minn. R. 7011.2310]
5.52.4	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.52.5	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.000588 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.52.6	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.52.7	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.52.8	The Permittee shall keep records of fuel type and hours of usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.52.9	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1; 40 CFR 60.2, additional terms defined in 40 CFR 60.4248; 40 CFR 60.3; 40 CFR 60.4;

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	40 CFR 60.5; 40 CFR 60.6; 40 CFR 60.7, only as specified in 40 CFR 60.4245; 40 CFR 60.9; 40 CFR 60.10; 40 CFR 60.11; 40 CFR 60.12; 40 CFR 60.14; 40 CFR 60.15; 40 CFR 60.16; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 60.4246, 40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. JJJ, Table 3, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2310, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
5.52.10	At the time of permit issuance, EQUI 274 is considered a new affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(2)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(1)(i) so no requirements of 40 CFR pt. 63, subps. A and ZZZZ, except the initial notification requirements of 40 CFR 63.6645(f), apply. [40 CFR 63.6590(a)(2)(i) and (b)(1)(i), Minn. R. 7011.8150]
5.52.11	The Permittee must operate and maintain stationary SI ICE that achieves the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. [40 CFR 60.4234, Minn. R. 7011.2310]
5.52.12	The Permittee must install a non-resettable hour meter. [40 CFR 60.4237(b), Minn. R. 7011.2310]
5.52.13	The Permittee must demonstrate compliance by purchasing an engine certified according to procedures specified in 40 CFR pt. 60, subp. JJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a) (listed below). The Permittee must operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, and keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The Permittee must also meet the requirements as specified in 40 CFR pt. 1068, subp. A through D, as they apply. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, EQUI 274 will not be considered out of compliance. [40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1), Minn. R. 7011.2310]
5.52.14	The Permittee must operate EQUI 274 according to 40 CFR 60.4243(d)(1) through (3) (listed below). In order for the engine to be considered an emergency stationary ICE under 40 CFR pt. 60, subp. JJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4243(d)(1) through (3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR 60.4243(d)(1) through (3), the engine will not be considered an emergency engine under 40 CFR pt. 60, subp. JJJ and must meet all requirements for non-emergency engines. (1) There is no time limit on the use of emergency stationary ICE in emergency situations. (2) The Permittee may operate EQUI 256 for the purpose specified in 40 CFR 60.4243(d)(2)(i) (listed below) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as

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	allowed by 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4243(d)(2). (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. (D) The power is provided only to the facility itself or to support the local transmission and distribution system. (E) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee. [40 CFR 60.4243(d), Minn. R. 7011.2310]
5.52.15	The Permittee may operate EQUI 274 using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee is required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. [40 CFR 60.4243(e), Minn. R. 7011.2310]
5.52.16	The Permittee must keep records of the information in 40 CFR 60.4245(a)(1) through (3) (listed below). (1) All notifications submitted to comply with 40 CFR pt. 60, subp. JJJJ and all documentation supporting any notification. (2) Maintenance conducted on EQUI 256. (3) Documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR pt. 90, 1048, 1054, and 1060, as applicable. [40 CFR 60.4245(a)(1), (2), and (3), Minn. R. 7011.2310]
5.52.17	The Permittee must keep records of the hours of operation of EQUI 274 that is recorded through the

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	non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 60.4245(b), Minn. R. 7011.2310]
5.52.18	If EQUI 274 operates for the purposes specified in 40 CFR 60.4243(d)(3)(i), the Permittee must submit an annual report according to the requirements in 40 CFR 60.4245(e)(1) through (3). The report must contain the following information: - Company name and address where the engine is located. - Date of the report and beginning and ending dates of the reporting period. - Engine site rating and model year. - Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. - Hours spent for operation for the purposes specified in 40 CFR 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [40 CFR 60.4245(e)(1), Minn. R. 7011.2310]
TREA 6	Voyager Thermal Oxidizer
5.53.1	Temperature $\geq$ 1,581 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance for VOC emissions was demonstrated. The new limit must be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC emitted during that time must be considered uncontrolled until the average temperature is above the minimum temperature limit. This must be reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.53.2	The Permittee shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of +/- 0.75 percent of the temperature being measured expressed in degrees Celsius or +/- 2.5 degrees C. [40 CFR 60.445(e), Minn. R. 7011.2560]
5.53.3	The Permittee shall continuously record the destruction device combustion temperature during coating operations. The Permittee shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 degrees C (50 degrees F) below the average temperature of the device during the most recent performance test complying with 40 CFR 60.442(a)(2). [40 CFR 60.443(e), Minn. R. 7011.2560]
5.53.4	Oven Pressure Differential $\leq$ -0.0070 inches of water column, 3-hour rolling average, measured in the first oven zone. [40 CFR 64.3(a), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.0200]
5.53.5	The Permittee must operate and maintain control equipment when applying VOC (as opposed to "low VOC" as defined at COMG 17) based on solvent coatings at COMG 17, such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 96 percent control efficiency. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.53.6	For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit: - The control efficiency limit specified in this permit for this equipment (96%); or - The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.53.7	The Permittee must vent emissions from EQUIs 46, 47, 48, 49, 50, and 51 to TREA 6 whenever EQUI

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	46, 47, 48, 49, 50, or 51 operates applying VOC solvent coatings (as opposed to low VOC), and operate and maintain TREA 6 at all times that any emissions are vented to TREA 6. The Permittee must document periods of non-operation of the control equipment TREA 6 whenever EQUI 46, 47, 48, 49, 50, or 51 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.53.8	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing temperature limit, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.53.9	If the Permittee replaces TREA 6, the replacement control must meet or exceed the control efficiency requirements of TREA 6 as well as comply with all other requirements of TREA 6. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
5.53.10	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.53.11	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
5.53.12	The Permittee must operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.53.13	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 1 degree Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. The Permittee shall record all 3-hour periods (during actual coating operations) when the average temperature is more than 50 degrees F below the average temperature of the most recent performance test. [40 CFR 60.443(e), 40 CFR 60.445(e), 40 CFR 63.3350(e)(9), 40 CFR 64.3(b)(4)(ii) and Minn. R. 7017.0200, Minn. R. 7007.0800, subp. 4, Minn. R. 7011.2560, Minn. R. 7011.7385]
5.53.14	Oven Pressure Differential Monitoring: The Permittee shall maintain and operate a pressure differential monitoring device that continuously indicates and records the oven pressure differential in the first zone for each oven venting to TREA 6. The monitoring device shall have an accuracy +/- 0.75 percent of the span. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.

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	The Permittee shall record all 3-hour periods (during actual coating operations) when the average pressure differential is greater than -0.007 inches of water column. [40 CFR 64.3(b)(4)(ii), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.53.15	Daily Monitoring: The Permittee shall comply with one of the following options: 1) The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written or electronic record of the daily verifications; or 2) Interlock equipment with the temperature monitor and recording device so that the equipment will shut down if the temperature monitor and/or recording device is not operating. [40 CFR 64.3(b), Minn. R. 7017.0200]
5.53.16	Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.53.17	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 63.3350(e)(10)(i), 40 CFR 64.7(b), Minn. R. 7011.7385, Minn. R. 7017.0200]
5.53.18	Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.53.19	The Permittee shall maintain a continuous hard copy readout, electronic, or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 60.445(e), 40 CFR 64.9(b), Minn. R. 7007.0800, subp. 4 and 5, , Minn. R. 7011.2560, Minn. R. 7017.0200, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.53.20	Quarterly Inspections: At least once per calendar quarter or more frequently as required by the manufacturing specification, the Permittee must inspect components that are not subject to wear including structural components, housings, ducts, and hoods. [40 CFR 64.3, Minn. R. 7017.0200]
5.53.21	Annual Calibration or Replacement: The Permittee shall calibrate or replace the temperature monitor at least once every 12 months and shall maintain a written record of the calibration or replacement and any resulting action. [40 CFR 64.3, Minn. R. 7017.0200]
5.53.22	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.53.23	Semiannual Inspections: At least once each calendar half-year or more frequently as required by the manufacturer specification, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written or electronic record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.53.24	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]

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5.53.25	When TREA 6 is used to comply with 40 CFR pt. 63, subp. JJJJ, the Permittee must develop a quality control program that must contain, at a minimum, a written protocol that describes the procedures for verifying that the temperature sensor is operating properly using at least one of the methods in 40 CFR 63.3350(e)(10)(iv)(A), (B), (C), (D), (E), or (F) (listed below). The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR pt. 63, subp. JJJJ, to be made available for inspection, upon request, by the Administrator: (A) Semiannually, compare measured readings to a National Institute of Standards and Technology (NIST) traceable temperature measurement device or simulate a typical operating temperature using a NIST traceable temperature simulation device. When the temperature measurement device method is used, the sensor of the calibrated device must be placed as close as practicable to the process sensor, and both devices must be subjected to the same environmental conditions. The accuracy of the temperature measured must be 2.5 percent of the temperature measured by the NIST traceable device or 5 degrees Fahrenheit whichever is greater. (B) Annually validate the temperature sensor by following applicable mechanical and electrical validation procedures in the manufacturer owner's manual. (C) Annually request the temperature sensor manufacturer to certify or re-certify electromotive force (electrical properties) of the thermocouple. (D) Annually replace the temperature sensor with a new certified temperature sensor in lieu of validation. (E) Permanently install a redundant temperature sensor as close as practicable to the process temperature sensor. The sensors must yield a reading within 2.5 percent of each other for thermal oxidizers and catalytic oxidizers. (F) Permanently install a temperature sensor with dual sensors to account for the possibility of failure. [40 CFR 63.3350(e)(10)(iv), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4-5, Minn. R. 7011.7385]
5.53.26	If TREA 6 is used to comply with the emission standards in 40 CFR 63.3320, the Permittee must establish the applicable operating limits required by 40 CFR 63.3321. These operating limits apply to each add-on emission control device, and the Permittee must establish the operating limits during the performance test required by 40 CFR 63.3360(e) according to the requirements in 40 CFR 63.3360(e)(3)(i) (listed below): (i) Thermal oxidizer: Establish the operating limits according to 40 CFR 63.3360(e)(3)(i)(A) and (B), listed below: (A) During the performance test, the Permittee must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. The Permittee must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs. (B) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. Maintain the 3-hour average combustion temperature no more than 50 degrees Fahrenheit lower than this average combustion temperature. [40 CFR 63.3360(e)(3)(i), Minn. R. 7011.7385]
5.53.27	If TREA 6 is used to comply with the emission limits required by 40 CFR pt. 63, subp. JJJJ, the

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	Permittee must maintain the 3-hour average combustion temperature no more than 50 degrees Fahrenheit lower than the combustion temperature limit established according to 40 CFR 63.3360(e)(3)(i). [40 CFR 63.3321(a), 40 CFR 63.3360(e)(3)(i)(B), Minn. R. 7011.7385]
5.53.28	If TREA 6 is used to comply with emission standards of 40 CFR pt. 63, subp. JJJJ, the Permittee must conduct a performance test to establish the destruction or removal efficiency of the control device according to the methods and procedures in 40 CFR 63.3360(e)(1) and (2). During the test, operating limits required by 40 CFR 63.3321 must be established according to 40 CFR 63.3360(e)(3). [40 CFR 63.3360(e), Minn. R. 7011.7385]
5.53.29	If TREA 6 is used to demonstrate compliance with 40 CFR pt. 63, subp. JJJJ, using the requirements of 40 CFR 63.3370(f), (g), (h), (i), (j)(2), (l), (o)(2) or (3), or (q), capture efficiency must be determined using the procedures in 40 CFR 63.3360(f)(1), (2), or (3), listed below: (1) The Permittee may assume the capture efficiency equals 100 percent if the capture system is a permanent total enclosure (PTE). The Permittee must confirm that the capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR pt. 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device. (2) The Permittee may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR pt. 51, appendix M. The Permittee may exclude never-controlled work stations from such capture efficiency determinations. (3) The Permittee may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A of 40 CFR pt. 63, subp. KK. The Permittee may exclude never-controlled work stations from such capture efficiency determinations. [40 CFR 63.3360(f), Minn. R. 7011.7385]
TREA 8	1L/3L Thermal Oxidizer
5.54.1	The Permittee is required to operate TREA 8 when applying VOC (as opposed to "low VOC" as defined at COMG 31) based solvent coatings at COMG 31. When required to operate, the Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 95 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.54.2	Temperature $\geq$ 1,518 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit must be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC emitted during that time must be considered uncontrolled until the average temperature is above the minimum temperature limit. This must be reported as a deviation. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.54.3	Oven Pressure Differential $\leq$ -0.0070 inches of water column, 3-hour rolling average, measured in the first oven zone. [40 CFR pt. 64, 3(a), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.0200]
5.54.4	Monitoring of Operation of Temperature Recorder: The Permittee shall maintain and operate an alarm to indicate when the temperature measurement and recording system is not operating. [40 CFR 64.3(b), Minn. R. 7017.0200, Minn. R. 7019.3020(G), Minn. R. 7019.3050, Minn. Stat. 116.07, subd. 4a, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.54.5	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring

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	device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 1 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. The Permittee shall separately record all 3-hour periods (during actual coating operations) when the average temperature is more than 50 degrees F below the average temperature of the most recent performance test. [40 CFR 60.443(e), 40 CFR 60.445(e), 40 CFR 63.3350(e)(9), 40 CFR 64.3(b)(4)(ii) and Minn. R. 7017.0200, Minn. R. 7011.2560, Minn. R. 7011.7385, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.54.6	Monitoring Equipment: The Permittee shall maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 63.3350(e)(10)(i), 40 CFR 64.7(b), Minn. R. 7011.7385, Minn. R. 7017.0200]
5.54.7	Oven Pressure Differential Monitoring: The Permittee shall maintain and operate a pressure differential monitoring device that continuously indicates and records the oven pressure differential in the first zone for each oven venting to TREA 8. The monitoring device shall have an accuracy +/- 0.75 percent of the span. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. The Permittee shall record all 3-hour periods (during actual coating operations) when the average pressure differential is greater than -0.007 inches of water column. [40 CFR 64.3(b)(4)(ii), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.54.8	Daily Monitoring: The Permittee shall comply with one of the following options: 1) The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written or electronic record of the daily verifications; or 2) Interlock equipment with the temperature monitor and recording device so that the equipment will shut down if the temperature monitor and/or recording device is not operating. [40 CFR 64.3(b), Minn. R. 7017.0200]
5.54.9	If the Permittee replaces TREA 8, the replacement control must meet or exceed the control efficiency requirements of TREA 8 as well as comply with all other requirements of TREA 8. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.54.10	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing temperature range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.54.11	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause

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	of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.54.12	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
5.54.13	The Permittee must operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.54.14	The Permittee shall maintain a continuous hard copy readout, electronic, or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 60.445(e), 40 CFR 64.9(b), Minn. R. 7011.2560, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.54.15	Annual Calibration or Replacement: The Permittee shall calibrate or replace the temperature monitor at least once every 12 months and shall maintain a written record of the calibration or replacement and any resulting action. [40 CFR 64.3, Minn. R. 7017.0200]
5.54.16	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.54.17	Quarterly Inspections: At least once per calendar quarter or more frequently as required by the manufacturing specification, the Permittee must inspect components that are not subject to wear including structural components, housings, ducts, and hoods. [40 CFR 64.3, Minn. R. 7017.0200]
5.54.18	Semiannual Inspections: At least once each calendar half-year or more frequently as required by the manufacturer specification, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written or electronic record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.54.19	For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit: a. The control efficiency limit specified in this permit for this equipment (95%); or b. The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.54.20	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.54.21	When TREA 8 is used to comply with 40 CFR pt. 63, subp. JJJJ, the Permittee must comply with the following:

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	- Install, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. - Install, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of + or - 1 percent of the temperature being monitored in degrees Fahrenheit or + or - 1.8 degrees Fahrenheit, whichever is greater. The temperature sensor must be installed in the combustion chamber at a location in the combustion zone. - For temperature sensors, the Permittee must develop a quality control program that must contain, at a minimum, a written protocol that describes the procedures for verifying that the temperature sensor is operating properly using at least one of the methods in 40 CFR 63.3350(e)(10)(iv)(A), (B), (C), (D), (E), or (F) (listed below). The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR pt. 63, subp. JJJJ, to be made available for inspection, upon request, by the Administrator: (A) Semiannually, compare measured readings to a National Institute of Standards and Technology (NIST) traceable temperature measurement device or simulate a typical operating temperature using a NIST traceable temperature simulation device. When the temperature measurement device method is used, the sensor of the calibrated device must be placed as close as practicable to the process sensor, and both devices must be subjected to the same environmental conditions. The accuracy of the temperature measured must be 2.5 percent of the temperature measured by the NIST traceable device or 5 degrees Fahrenheit whichever is greater. (B) Annually validate the temperature sensor by following applicable mechanical and electrical validation procedures in the manufacturer owner's manual. (C) Annually request the temperature sensor manufacturer to certify or re-certify electromotive force (electrical properties) of the thermocouple. (D) Annually replace the temperature sensor with a new certified temperature sensor in lieu of validation. (E) Permanently install a redundant temperature sensor as close as practicable to the process temperature sensor. The sensors must yield a reading within 2.5 percent of each other for thermal oxidizers and catalytic oxidizers. (F) Permanently install a temperature sensor with dual sensors to account for the possibility of failure. - Conduct the validation checks in 40 CFR 63.3350(e)(10)(iv)(A), (B), or (C) any time the temperature sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor. -At least quarterly, inspect temperature sensor components for proper connection and integrity or continuously operate an electronic monitoring system designed to notify personnel if the signal from the temperature sensor is interrupted. [40 CFR 63.3350(e), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4-5, Minn. R. 7011.7385]
5.54.22	If TREA 8 is used to comply with the emission standards in 40 CFR 63.3320, the Permittee must establish the applicable operating limits required by 40 CFR 63.3321. These operating limits apply to each add-on emission control device, and the Permittee must establish the operating limits during the performance test required by 40 CFR 63.3360(e) according to the requirements in 40 CFR 63.3360(e)(3)(i) listed below: (i) Thermal oxidizer: Establish the operating limits according to 40 CFR 63.3360(e)(3)(i)(A) and (B), listed below:

Requirement number	Requirement and citation
	(A) During the performance test, the Permittee must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. The Permittee must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs. (B) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. Maintain the 3-hour average combustion temperature no more than 50 degrees Fahrenheit lower than this average combustion temperature. [40 CFR 63.3360(e)(3)(i), Minn. R. 7011.7385]
5.54.23	If TREA 8 is used to comply with the emission limits required by 40 CFR pt. 63, subp. JJJJ, the average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR 63.3360(e)(3)(i). [40 CFR 63.3321(a), Minn. R. 7011.7385]
5.54.24	If TREA 8 is used to comply with emission standards of 40 CFR pt. 63, subp. JJJJ, the Permittee must conduct a performance test to establish the destruction or removal efficiency of the control device according to the methods and procedures in 40 CFR 63.3360(e)(1) and (2). During the test, operating limits required by 40 CFR 63.3321 must be established according to 40 CFR 63.3360(e)(3). [40 CFR 63.3360(e), Minn. R. 7011.7385]
5.54.25	If TREA 8 is used to demonstrate compliance with 40 CFR pt. 63, subp. JJJJ, using the requirements of 40 CFR 63.3370(f), (g), (h), (i), (j)(2), (l), (o)(2) or (3), or (q), capture efficiency must be determined using the procedures in 40 CFR 63.3360(f)(1), (2), or (3), listed below: (1) The Permittee may assume the capture efficiency equals 100 percent if the capture system is a permanent total enclosure (PTE). The Permittee must confirm that the capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR pt. 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device. (2) The Permittee may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR pt. 51, appendix M. The Permittee may exclude never-controlled work stations from such capture efficiency determinations. (3) The Permittee may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A of 40 CFR pt. 63, subp. KK. The Permittee may exclude never-controlled work stations from such capture efficiency determinations. [40 CFR 63.3360(f), Minn. R. 7011.7385]
5.54.26	The Permittee must vent emissions from EQUIs 196-201 and 130-143 to TREA 8 whenever EQUI 196-201 or 130-143 operates applying VOC solvent coatings (as opposed to low VOC), and operate and maintain TREA 8 at all times that any emissions are vented to TREA 8. The Permittee must document periods of non-operation of the control equipment TREA 8 whenever EQUI 196-201 or 130-143 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
TREA 10	10J Venturi Scrubber
5.55.1	The Permittee must vent emissions from EQUI 195 to TREA 10 whenever EQUI 195 operates, and operate and maintain TREA 10 at all times that any emissions are vented to TREA 10. The Permittee must document periods of non-operation of the control equipment TREA 10 whenever EQUI 195 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.2	If the Permittee replaces TREA 10, the replacement control must meet or exceed the control efficiency requirements of TREA 10 as well as comply with all other requirements of TREA 10. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment,

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	as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.3	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for Particulate Matter ≥ 72 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.4	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for PM < 10 micron ≥ 72 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.5	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for PM < 2.5 micron ≥ 68 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.6	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for Volatile Organic Compounds ≥ 72 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.7	Liquid Flow Rate ≥ 80 and ≤ 110 gallons per minute, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. The Permittee must record the liquid flow rate at least once every 24 hours when in operation. If the recorded flow rate is below the minimum flow rate limit, the emissions during that time must be considered uncontrolled until the flow rate is once again above the minimum flow rate limit. The period of time for which the flow rate is below the minimum limit must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.8	Pressure Drop ≥ 32 and ≤ 40 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. The Permittee must record the pressure drop at least once every 24 hours when in operation. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.9	Recordkeeping of Pressure Drop and Liquid Flow Rate: The Permittee must record the time and date of each pressure drop reading and liquid flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]

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5.55.10	Corrective Actions: The Permittee must take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions must return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee must keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.55.11	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written or electronic record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.55.12	Monitoring Equipment: The Permittee must install and maintain the necessary monitoring equipment for measuring and recording pressure drop and liquid flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.55.13	The Permittee must calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and must maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.55.14	The Permittee must operate and maintain the scrubber in accordance with the O & M Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.55.15	Hood Certification and Evaluation: The Permittee must maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee must certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.55.16	Annual Hood Evaluation: The Permittee must measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee must maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
TREA 11	5L Solvent Recovery Unit
5.56.1	The Permittee is required to operate TREA 11 when applying VOC (as opposed to "low VOC" as defined at COMG 8) based solvent coatings at COMG 8. When required to operate the Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds ≥ 80 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.56.2	The Permittee must limit the recovered volatile matter ≤ 100 pounds differential between meters.

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	[Minn. R. 7007.0800, subp. 2(A)]
5.56.3	The Permittee must limit the hydrocarbon vapor concentration < 1000 parts per million of heptane. [Minn. R. 7007.0800, subp. 2(A)]
5.56.4	The Permittee shall vent emissions from EQUIs 14 and 188 to TREA 11 whenever EQUI 14 or 188 operates applying VOC solvent coatings (as opposed to low VOC), and operate and maintain TREA 11 at all times that any emissions are vented to TREA 11. The Permittee shall document periods of non-operation of the control equipment TREA 11 whenever EQUI 14 or 188 is operating. [Minn. R. 7007.0800, subp. 2(A)]
5.56.5	The Permittee must operate and maintain TREA 11 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.56.6	The Permittee must calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile matter recovered by each solvent recovery device on a monthly basis. The device must be certified by the manufacturer to be accurate to within +/- 2.0 percent by mass. [40 CFR 63.3350(d)(2), Minn. R. 7011.7835]
5.56.7	The Permittee must calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates and records the hydrocarbon vapor concentration. [40 CFR 64.3(a), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.56.8	Daily Monitoring: The Permittee shall comply with one of the following options: 1) The Permittee shall physically verify the operation of the monitoring recording devices at least once each operating day to verify that each device is working and recording properly. The Permittee shall maintain a written or electronic record of the daily verifications; or 2) Interlock equipment with each monitoring recording device so that the equipment will shut down if any of the recording devices are not operating. [40 CFR 64.3(b), Minn. R. 7017.0200]
5.56.9	Quarterly Inspections: At least once per calendar quarter, the Permittee must inspect the control equipment components. The Permittee must maintain a written or electronic record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.56.10	Annual Inspection: At least once per calendar year, the Permittee must conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4-5]
5.56.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - any recorded operating parameter is outside the required operating range; or - TREA11 or any of its components are found during the inspections to need repair. Corrective actions shall return operation to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the ESP. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.56.12	If the Permittee replaces TREA 11, the replacement control must meet or exceed the control efficiency requirements of TREA 11 as well as comply with all other requirements of TREA 11. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven

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	working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.56.13	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing temperature range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.56.14	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.56.15	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
5.56.16	Monitoring Equipment: The Permittee shall install and maintain a device that indicates and records the cumulative amount of volatile matter recovered as required by this permit, and install and maintain a device that indicates and records the hydrocarbon vapor concentration. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.56.17	The Permittee shall maintain a continuous hard copy readout, electronic, or computer disk file of the readings of the cumulative amount of volatile matter recovered and hydrocarbon vapor concentration. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.56.18	Annual Calibration: The Permittee shall calibrate the monitor that indicates the cumulative amount of volatile matter recovered at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
TREA 12	Enterprise Thermal Oxidizer
5.57.1	The Permittee is required to operate TREA 12 when applying VOC (as opposed to "low VOC" as defined at COMG 16) based solvent coatings at COMG 16. When required to operate, the Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds ≥ 96 percent control efficiency. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.57.2	Oven Pressure Differential ≤ -0.007 inches of water column, 3-hour rolling average, measured in the first oven zone. [40 CFR pt. 64, 3(a), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.0200]
5.57.3	Temperature $\geq 1,584$ degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit must be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC emitted during that time must be considered uncontrolled until the average temperature is above the minimum temperature limit. This must be

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	reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.57.4	The Permittee must vent emissions from EQUIs 101, 102, and 103 to TREA 12 whenever EQUI 101, 102, and 103 operates applying VOC solvent coatings (as opposed to low VOC), and operate and maintain TREA 12 at all times that any emissions are vented to TREA 12. The Permittee must document periods of non-operation of the control equipment TREA 12 whenever EQUI 101, 102, or 103 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.57.5	If the Permittee replaces TREA 12, the replacement control must meet or exceed the control efficiency requirements of TREA 12 as well as comply with all other requirements of TREA 12. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.57.6	For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit: - The control efficiency limit specified in this permit for this equipment (96%); or - The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.57.7	Daily Monitoring: The Permittee shall comply with one of the following options: 1) The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written or electronic record of the daily verifications; or 2) Interlock equipment with the temperature monitor and recording device so that the equipment will shut down if the temperature monitor and/or recording device is not operating. [40 CFR 64.3(b), Minn. R. 7017.0200]
5.57.8	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 1 degree Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. The Permittee shall separately record all 3-hour periods (during actual coating operations) when the average temperature is more than 50 degrees F below the average temperature of the most recent performance test. [40 CFR 60.443(e), 40 CFR 60.445(e), 40 CFR 63.3350(e)(10), 40 CFR 64.3(b)(4)(ii) and Minn. R. 7017.0200, Minn. R. 7011.2560, Minn. R. 7011.7385, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.57.9	The Permittee shall maintain a continuous hard copy readout, electronic, or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.57.10	Purge bypass dampers shall be electrically interlocked with the coating line such that dampers will not open to the atmosphere when web is being coated or dried during solvent-base coating operations. A manual override of this interlock may be used to "exercise" dampers during solvent-base coating

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	operations for safety purposes when a continuous coating run exceeds 8 hours. The dampers shall not be open to atmosphere (for excising purposes) during solvent-base coating operations for more than three minutes per set of sources and stack dampers in any one calendar day. During damper exercising periods, emissions are considered to be uncontrolled for the purposes of demonstrating compliance with permit limitations and calculating emissions. During emergency situations, the Permittee may use the existing automatic electronic override to open the dampers. Emergency situations are described as: 1. High percent LFL detected in any of the oven zones (requires an immediate bypass to atmosphere, simultaneous shutdown of applying solvent, and maximum dilution into the oven zone); 2. Loss of damper proximity switches showing that the coater is properly routed to the oxidizer and not to atmosphere; 3. Loss of PLC communication which ensures safety checks between coater and oxidizer are satisfied; 4. Static pressure transmitters within the oven and/or at the exhaust of the oven may direct exhaust to atmosphere; 5. High temperature alarm within the ductwork; 6. Loss of proof of dilution. For some coaters this may just disable group drive; for others it may take the coater off-line; 7. Miscellaneous interlocks. Logic also exists to drop coaters on a fire alarm, or CO2 discharge in the area where the coater is located; and 8. Faults generated by the oxidizer which direct the coater to go to atmosphere. Examples include oxidizer fan failure, combustion blower failure, oxidizer combustion chamber over temperature, gas train interlock trip, oxidizer valve out of position alarm, oxidizer high cold face temperature, oxidizer high stack temperature, excessive negative inlet pressure, high inlet pressure, high flow across the oxidizer. Records shall be kept on site of the date, time, and duration of all times that uncontrolled emissions are directed to atmosphere due to damper exercising activities. These activities are included as part of the process in the BACT determination and do not violate the proposed BACT control standards. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.57.11	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing temperature range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.57.12	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.57.13	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]

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5.57.14	The Permittee must operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.57.15	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.57.16	Annual Calibration or Replacement: The Permittee shall calibrate or replace the temperature monitor at least once every 12 months and shall maintain a written record of the calibration or replacement and any resulting action. [40 CFR 64.3, Minn. R. 7017.0200]
5.57.17	Oven Pressure Differential Monitoring: The Permittee shall maintain and operate a pressure differential monitoring device that continuously indicates and records the oven pressure differential in the first zone for each oven venting to TREA 12. The monitoring device shall have an accuracy +/- 0.75 percent of the span. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. The Permittee shall record all 3-hour periods (during actual coating operations) when the average pressure differential is greater than -0.007 inches of water column. [40 CFR 64.3(b)(4)(ii), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.57.18	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.57.19	Semiannual Inspections: At least once each calendar half-year or more frequently as required by the manufacturer specification, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written or electronic record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.57.20	Quarterly Inspections: At least once per calendar quarter or more frequently as required by the manufacturing specification, the Permittee must inspect components that are not subject to wear including structural components, housings, ducts, and hoods. [40 CFR 64.3, Minn. R. 7017.0200]
5.57.21	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.57.22	Monitoring of Operation of Temperature Recorder: The Permittee shall install, maintain and operate an alarm to indicate when the temperature measurement and recording system is not operating. [Minn. R. 7007.0800, subps. 4-5]
5.57.23	When TREA 12 is used to comply with 40 CFR pt. 63, subp. JJJJ, the Permittee must comply with the following: - Install, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. - Install, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of + or - 1 percent

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	of the temperature being monitored in degrees Fahrenheit or + or - 1.8 degrees Fahrenheit, whichever is greater. The temperature sensor must be installed in the combustion chamber at a location in the combustion zone. - For temperature sensors, the Permittee must develop a quality control program that must contain, at a minimum, a written protocol that describes the procedures for verifying that the temperature sensor is operating properly using at least one of the methods in 40 CFR 63.3350(e)(10)(iv)(A), (B), (C), (D), (E), or (F) (listed below). The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR pt. 63, subp. JJJJ, to be made available for inspection, upon request, by the Administrator: (A) Semiannually, compare measured readings to a National Institute of Standards and Technology (NIST) traceable temperature measurement device or simulate a typical operating temperature using a NIST traceable temperature simulation device. When the temperature measurement device method is used, the sensor of the calibrated device must be placed as close as practicable to the process sensor, and both devices must be subjected to the same environmental conditions. The accuracy of the temperature measured must be 2.5 percent of the temperature measured by the NIST traceable device or 5 degrees Fahrenheit whichever is greater. (B) Annually validate the temperature sensor by following applicable mechanical and electrical validation procedures in the manufacturer owner's manual. (C) Annually request the temperature sensor manufacturer to certify or re-certify electromotive force (electrical properties) of the thermocouple. (D) Annually replace the temperature sensor with a new certified temperature sensor in lieu of validation. (E) Permanently install a redundant temperature sensor as close as practicable to the process temperature sensor. The sensors must yield a reading within 2.5 percent of each other for thermal oxidizers and catalytic oxidizers. (F) Permanently install a temperature sensor with dual sensors to account for the possibility of failure. - Conduct the validation checks in 40 CFR 63.3350(e)(10)(iv)(A), (B), or (C) any time the temperature sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor. -At least quarterly, inspect temperature sensor components for proper connection and integrity or continuously operate an electronic monitoring system designed to notify personnel if the signal from the temperature sensor is interrupted. [40 CFR 63.3350(e), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4-5, Minn. R. 7011.7385]
TREA 13	19J Venturi Scrubber
5.58.1	The Permittee must vent emissions from EQUI 105 to TREA 13 whenever EQUI 105 operates, and operate and maintain TREA 13 at all times that any emissions are vented to TREA 13. The Permittee must document periods of non-operation of the control equipment TREA 13 whenever EQUI 105 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.2	If the Permittee replaces TREA 13, the replacement control must meet or exceed the control efficiency requirements of TREA 13 as well as comply with all other requirements of TREA 13. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]

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5.58.3	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for Particulate Matter ≥ 72 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.4	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for PM < 10 micron ≥ 72 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.5	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for PM < 2.5 micron ≥ 68 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.6	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for Volatile Organic Compounds ≥ 72 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.7	Liquid Flow Rate ≥ 80 and ≤ 110 gallons per minute, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. The Permittee must record the liquid flow rate at least once every 24 hours when in operation. If the recorded flow rate is below the minimum flow rate limit or above the maximum flow rate limit, the emissions during that time must be considered uncontrolled until the flow rate is once again within the flow rate limit range. The period of time for which the flow rate is below the minimum limit or above the maximum limit must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.8	Pressure Drop ≥ 32 and ≤ 40 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. The Permittee must record the pressure drop at least once every 24 hours when in operation. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.9	Recordkeeping of Pressure Drop and Liquid Flow Rate: The Permittee must record the time and date of each pressure drop reading and liquid flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.10	Corrective Actions: The Permittee must take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair.

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	Corrective actions must return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee must keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.58.11	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written or electronic record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.58.12	Monitoring Equipment: The Permittee must install and maintain the necessary monitoring equipment for measuring and recording pressure drop and liquid flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.58.13	The Permittee must calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and must maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.58.14	The Permittee must operate and maintain the scrubber in accordance with the O & M Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.58.15	Hood Certification and Evaluation: The Permittee must maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee must certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.58.16	Annual Hood Evaluation: The Permittee must measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee must maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
TREA 15	6L Thermal Oxidizer
5.59.1	The Permittee is required to operate this control equipment when applying VOC (as opposed to "low VOC" as defined at COMG 9) based solvent coatings at COMG 9. When required to operate, the Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 95 percent control efficiency. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.59.2	Temperature $\geq$ 1,298 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit must be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature

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	is below the minimum temperature limit, the VOC emitted during that time must be considered uncontrolled until the average temperature is above the minimum temperature limit. This must be reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.59.3	Oven Pressure Differential ≤ -0.007 inches of water column, 3-hour rolling average, measured in the first oven zone. [40 CFR pt. 64, 3(a), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.0200]
5.59.4	The Permittee must vent emissions from EQUIs 15, 16, 17, and 26 to TREA 15 whenever EQUI 15, 16, 17, or 26 operates applying VOC solvent coatings (as opposed to low VOC), and operate and maintain TREA 15 at all times that any emissions are vented to TREA 15. The Permittee must document periods of non-operation of the control equipment TREA 15 whenever EQUI 15, 16, 17 or 26 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.59.5	If the Permittee replaces TREA 15, the replacement control must meet or exceed the control efficiency requirements of TREA 15 as well as comply with all other requirements of TREA 15. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.59.6	The Permittee shall continuously record the destruction device combustion temperature during coating operations. The Permittee shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 degrees C (50 degrees F) below the average temperature of the device during the most recent performance test complying with 40 CFR 60.442(a)(2). [40 CFR 60.443(e), Minn. R. 7011.2560]
5.59.7	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 1 degree Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 60.443(e), 40 CFR 60.445(e), 40 CFR 63.3350(e)(9), 40 CFR 64.3(b)(4)(ii) and Minn. R. 7017.0200, Minn. R. 7011.2560, Minn. R. 7011.7385, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.59.8	The Permittee shall maintain a continuous hard copy readout, electronic, or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 60.445(e), 40 CFR 64.9(b), Minn. R. 7011.2560, Minn. R. 7017.0200, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.59.9	Daily Monitoring: The Permittee shall comply with one of the following options: 1) The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written or electronic record of the daily verifications; or 2) Interlock equipment with the temperature monitor and recording device so that the equipment will shut down if the temperature monitor and/or recording device is not operating. [40 CFR 64.3(b), Minn. R. 7017.0200]
5.59.10	For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit: a. The control efficiency limit specified in this permit for this equipment (95%); or

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	b. The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.59.11	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing temperature limit, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.59.12	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.59.13	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
5.59.14	The Permittee must operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.59.15	Annual Calibration or Replacement: The Permittee shall calibrate or replace the temperature monitor at least once every 12 months and shall maintain a written record of the calibration or replacement and any resulting action. [40 CFR 64.3, Minn. R. 7017.0200]
5.59.16	Oven Pressure Differential Monitoring: The Permittee shall maintain and operate a pressure differential monitoring device that continuously indicates and records the oven pressure differential in the first zone for each oven venting to TREA 15. The monitoring device shall have an accuracy +/- 0.75 percent of the span. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. The Permittee shall record all 3-hour periods (during actual coating operations) when the average pressure differential is greater than -0.007 inches of water column. [40 CFR 64.3(b)(4)(ii), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.59.17	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.59.18	Monitoring of Operation of Temperature Recorder: The Permittee shall install, maintain and operate an alarm to indicate when the temperature measurement and recording system is not operating. [Minn. R. 7007.0800, subps. 4-5]
5.59.19	Quarterly Inspections: At least once per calendar quarter or more frequently as required by the manufacturing specification, the Permittee must inspect components that are not subject to wear including structural components, housings, ducts, and hoods. [40 CFR 64.3, Minn. R. 7017.0200]
5.59.20	Semiannual Inspections: At least once each calendar half-year or more frequently as required by the

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	manufacturer specification, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written or electronic record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.59.21	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.59.22	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.59.23	When TREA 15 is used to comply with 40 CFR pt. 63, subp. JJJJ, the Permittee must develop a quality control program that must contain, at a minimum, a written protocol that describes the procedures for verifying that the temperature sensor is operating properly using at least one of the methods in 40 CFR 63.3350(e)(10)(iv)(A), (B), (C), (D), (E), or (F) (listed below). The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR pt. 63, subp. JJJJ, to be made available for inspection, upon request, by the Administrator: (A) Semiannually, compare measured readings to a National Institute of Standards and Technology (NIST) traceable temperature measurement device or simulate a typical operating temperature using a NIST traceable temperature simulation device. When the temperature measurement device method is used, the sensor of the calibrated device must be placed as close as practicable to the process sensor, and both devices must be subjected to the same environmental conditions. The accuracy of the temperature measured must be 2.5 percent of the temperature measured by the NIST traceable device or 5 degrees Fahrenheit whichever is greater. (B) Annually validate the temperature sensor by following applicable mechanical and electrical validation procedures in the manufacturer owner's manual. (C) Annually request the temperature sensor manufacturer to certify or re-certify electromotive force (electrical properties) of the thermocouple. (D) Annually replace the temperature sensor with a new certified temperature sensor in lieu of validation. (E) Permanently install a redundant temperature sensor as close as practicable to the process temperature sensor. The sensors must yield a reading within 2.5 percent of each other for thermal oxidizers and catalytic oxidizers. (F) Permanently install a temperature sensor with dual sensors to account for the possibility of failure. [40 CFR 63.3350(e)(10)(iv), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4-5, Minn. R. 7011.7385]
TREA 22	Condenser
5.60.1	The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 90 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A)]

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5.60.2	Temperature ≤ -12 degrees Celsius daily average of the ethylene glycol chiller return, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated, or an alternative monitoring request is submitted for a new limit as allowed under 40 CFR pt. 63, subps. HHHHH and SS and is MPCA-approved. The new limit shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the temperature is above the maximum temperature limit, the VOC used during that time shall be considered uncontrolled until the temperature is below the maximum temperature limit. This shall be reported as a deviation. [40 CFR 63.2, 40 CFR 63.8(f)(4)(i) and (ii), 40 CFR pt. 63, subp. HHHHH, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.8070]
5.60.3	Pressure Drop ≥ 0.10 inches of water, across EQUI 10 to indicate emissions are routed to the condenser, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, this shall be reported as a deviation. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.60.4	The Permittee must vent emissions from EQUI 10 to TREA 22 whenever EQUI 10 operates unless EQUI 10 is operated as an affiliated operation as described in 40 CFR 63.7985(d)(2), and operate and maintain TREA 22 at all times that any emissions are vented to TREA 22. The Permittee must document periods of non-operation of the control equipment TREA 22 whenever EQUI 10 is operating. [Minn. R. 7007.0800, subp. 2(A)]
5.60.5	If the Permittee replaces TREA 22, the replacement control must meet or exceed the control efficiency requirements of TREA 22 as well as comply with all other requirements of TREA 22. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
5.60.6	The Permittee must operate and maintain the condenser in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.60.7	The Permittee must maintain and operate a thermocouple monitoring device that continuously indicates and records the ethylene glycol chiller return temperature. The monitoring device must have a margin of error less than the greater of ± 0.75 percent of the temperature being measured or ± 2.5 degrees Celsius. [Minn. R. 7007.0800, subps. 4-5]
5.60.8	Daily Monitoring: The Permittee must comply with one of the following options: 1) The Permittee must physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee must maintain a written or electronic record of the daily verifications; or 2) Interlock equipment with the temperature monitor and recording device so that the equipment will shut down if the temperature monitor and/or recording device is not operating. [Minn. R. 7007.0800, subps. 4-5]
5.60.9	Weekly Monitoring: The Permittee must record EQUI 10 pressure drop at least once each calendar week. The record must include the time and date of the reading and whether or not it was within the

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	range specified by this permit. [Minn. R. 7007.0800, subps. 4-5]
5.60.10	Monitoring Equipment: The Permittee must install and maintain the necessary monitoring equipment for measuring and recording the temperature and pressure drops, as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored condenser is in operation. [Minn. R. 7007.0800, subps. 4-5]
5.60.11	The Permittee must maintain either a continuous copy readout of the ethylene glycol chiller return temperature, or maintain a copy of manual readings taken at least every 15 minutes. [Minn. R. 7007.0800, subps. 4-5]
5.60.12	Annual Calibration: The Permittee must calibrate the temperature monitor and pressure drop gauges at least once every 12 months and must maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.60.13	Quarterly Inspections: At least once per calendar quarter, the Permittee must inspect the control equipment components. The Permittee shall maintain a written or electronic record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.60.14	Annual Inspection: At least once per calendar year, the Permittee must conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee must maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.60.15	For periods when the condenser is operated within the parameters specified by this permit, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit: a. The control efficiency limit specified in this permit for this equipment; or b. The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Minn. R. 7007.0800, subps. 4-5]
5.60.16	Corrective Actions: If the temperature is above the maximum, the pressure drops are outside the specified ranges, or if the condenser or any of its components are found during the inspections to need repair, the Permittee must take corrective action as soon as possible. Corrective actions must return the temperature and/or pressure drops to the specified limits/ranges and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the condenser. The Permittee must keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.60.17	Nonflare control and recovery device regulated source monitoring records. (1) Monitoring system records. For process vents and high throughput transfer racks, the Permittee shall keep the records specified in 40 CFR 63.998(c), as well as records specified elsewhere in this 40 CFR pt. 63, subp. SS. (i) For a CPMS used to comply with 40 CFR pt. 63, subp. SS, a record of the procedure used for calibrating the CPMS. (ii) For a CPMS used to comply with 40 CFR pt. 63, subp. SS, records of the information specified in 40 CFR 63.998(c)(ii)(A) through (H), as indicated in a referencing subpart:

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	(A) The date and time of completion of calibration and preventive maintenance of the CPMS. (B) The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise. (C) The start time and duration or start and stop times of any periods when the CPMS is inoperative. (D) Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with this subpart during which excess emissions (as defined in a referencing subpart) occur. (E) For each start-up, shutdown, and malfunction during which excess emissions as defined in a referencing subpart occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event. (F) Records documenting each start-up, shutdown, and malfunction event. (G) Records of CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable. (H) Records of the total duration of operating time. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.998(c), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.60.18	The Permittee must operate and maintain TREA 22 so that the monitored parameters defined as required in 40 CFR 63.985(c) remain within the ranges specified in the Notification of Compliance Status whenever emissions of regulated material are routed to the control device. [40 CFR 63.8000(c)(1), 40 CFR 63.982(c), 40 CFR 63.985(a), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.60.19	An Omega Resistance Temperature Detector (RTD) probe (part # PR-14L-3-100-1/4-9, or similar) will be the component used to measure temperature at the chiller return location. The temperature data will be recorded using a data acquisition and historian system. The RTDs and data acquisition and historian system is the continuous parametric monitoring system (CPMS) that will obtain and record temperature (i.e., the monitoring parameter) data at least once every 15 minutes. For the chiller return location, ethylene glycol temperature will be measured in line between the outlet of the shell side of the condenser and the chiller return. Preventative maintenance (PM) will be performed on the RTDs quarterly. At each PM, the RTD calibration will be verified. If the RTD is outside of 2.5 deg. C accuracy, the RTD will be replaced. The general monitoring system requirements defined in 40 CFR 63.981 and 63.996(c) will be followed, as applicable, including: -The monitors will be installed, calibrated, maintained, and operated in accordance with the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. -Maintain and operate the monitoring system in a manner with good air pollution control practices. -The site will repair/replace monitors to correct "routine" or otherwise predictable malfunctions. As needed, parts for routine repairs will be maintained on-site. -The monitoring system will be in continuous operation when emissions are being routed to the condenser except for system breakdowns, repairs, maintenance periods, instrument adjustments, or

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	checks to maintain precision and accuracy, and calibration checks. [40 CFR 63.2, 40 CFR 63.8(f)(4)(i) and (ii), 40 CFR 63.981, 40 CFR 63.996(c), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.60.20	Continuous parametric (i.e., temperature) monitoring will be performed in accordance with applicable 40 CFR pt. 63, subp. HHHHH and 40 CFR pt. 63, subp. SS requirements. As defined in 40 CFR 63.981, continuous record means documentation, either in hard copy or computer readable form, of data values measured at least once every 15 minutes and recorded at the frequency specified in 40 CFR 63.998(b). Data handling requirements defined in 40 CFR 63.998(b) will be followed, as applicable, including: -Maintain a record of values measured at least once every 15 minutes or maintain each measured value for systems which collect data more frequently than once every 15 minutes. -Maintain a record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute. For automated monitoring systems, block hourly average values may be calculated from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of monitoring system breakdown or malfunction. Monitoring data recorded during the following periods must be excluded: -Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments. -Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies Data from startup, shutdown, and malfunction is not excluded from monitoring system daily averages for 40 CFR pt. 63, subp. HHHHH sources per 40 CFR 63.8000(d)(6). [40 CFR 63.2, 40 CFR 63.8(f)(4)(i) and (ii), 40 CFR 63.981, 40 CFR 63.998(b), Minn. R. 7011.8070, Minn. R. 7011.8190]
5.60.21	The site will calculate daily average temperature(s), in units of deg. C, which is consistent with the 40 CFR pt. 63, subp. HHHHH required averaging period. Records of daily averages for each operating day will be maintained for a minimum of five (5) years. The daily average must be calculated as the average of all values for the monitored parameter recorded during the operating day (40 CFR 63.998(b)). Recordkeeping requirements defined in 40 CFR 63.998(c) will followed, as applicable, including: -Maintain a record of the procedure used for calibrating the monitoring system (required to calibrate in accordance with manufacturer's specifications or other adequate, written procedures). -Record the date and time of completion of calibration and preventative maintenance of the monitoring system. Furthermore, record the results of each calibration check and all maintenance performed on the monitoring system. (40 CFR 63.8000(d)(5)(i)) -The "as found" and "as left" monitoring system readings, whenever an adjustment is made that affects the monitoring system reading and a "no adjustment" statement otherwise. -The start time and duration or start and stop times of any periods when the monitoring system is inoperative. -Records of the occurrence and duration of each start-up, shutdown, and malfunction of monitoring system used to comply with 40 CFR pt. 63, subp. HHHHH during which excess emissions occur. -Records of the total duration of CPMS operating time. [40 CFR 63.2, 40 CFR 63.8(f)(4)(i) and (ii), 40 CFR 63.8000(d)(5)(i), 40 CFR 63.998(b), Minn. R. 7011.8070, Minn. R. 7011.8190]
TREA 24	26/27 Thermal Oxidizer

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5.61.1	The Permittee must operate and maintain control equipment such that it achieves a control efficiency (the product of the capture efficiency and collection efficiency or the product of capture efficiency and destruction efficiency) for Volatile Organic Compounds ≥ 96 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.61.2	Temperature $\geq 1,350$ degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit must be implemented upon receipt of the follow up compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC emitted during that time must be considered uncontrolled until the average temperature is above the minimum temperature limit. This shall be reported as a deviation. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.61.3	Oven Pressure Differential ≤ -0.007 inches of water column, 3-hour rolling average, measured in the first oven zone. [40 CFR 64.3(a), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.0200]
5.61.4	The Permittee shall continuously record the destruction device combustion temperature during coating operations. The Permittee shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 degrees C (50 degrees F) below the average temperature of the device during the most recent performance test complying with 40 CFR 60.442(a)(2). [40 CFR 60.443(e), Minn. R. 7011.2560]
5.61.5	Capture system monitoring. The Permittee must develop and maintain a site-specific monitoring plan containing the information specified below for the capture system. If the Permittee wishes to take credit for operation of TREA 24 or is complying with the emission standards in 40 CFR 63.3320 through the use of a capture system and control device for one or more web coating lines, the Permittee must monitor the capture system in accordance with 40 CFR 63.3350(f)(3). The Permittee must make the monitoring plan available for inspection by the permitting authority upon request. (1) The monitoring plan must: (i) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and (ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and (iii) Identify the specific monitoring procedures. (2) The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards in 40 CFR 63.3320. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained. (3) The Permittee must conduct all capture system monitoring in accordance with the plan. (4) Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit, and the control efficiency of TREA 24. (5) The Permittee must review and update the capture system monitoring plan at least annually. [40 CFR 63.3350(f), Minn. R. 7011.7385, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]

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5.61.6	The Permittee shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of +/- 0.75 percent of the temperature being measured expressed in degrees Celsius or +/- 2.5 degrees C. [40 CFR 60.445(e), Minn. R. 7011.2560]
5.61.7	The Permittee is required to operate this control equipment when applying VOC based solvent coatings at COMG 34. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.61.8	The Permittee shall record all three-hour periods (during actual coating operations) during which the average temporary total enclosure monitoring device readings vary by five percent or more from the average value measured during the most recent performance test that demonstrated compliance. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.61.9	Low VOC based or water based coatings (as defined herein) may be run without control. Coating solutions are considered low VOC or water based when the VOC content is less than 4% by weight. [Minn. R. 7007.0800, subps. 4-5]
5.61.10	Monitoring of Operation of Temperature Recorder: The Permittee shall install, maintain and operate an alarm to indicate when the temperature measurement and recording system is not operating. [Minn. R. 7007.0800, subps. 4-5]
5.61.11	When TREA 24 is used to comply with 40 CFR pt. 63, subp. JJJJ, the Permittee must develop a quality control program that must contain, at a minimum, a written protocol that describes the procedures for verifying that the temperature sensor is operating properly using at least one of the methods in 40 CFR 63.3350(e)(10)(iv)(A), (B), (C), (D), (E), or (F) (listed below). The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR pt. 63, subp. JJJJ, to be made available for inspection, upon request, by the Administrator: (A) Semiannually, compare measured readings to a National Institute of Standards and Technology (NIST) traceable temperature measurement device or simulate a typical operating temperature using a NIST traceable temperature simulation device. When the temperature measurement device method is used, the sensor of the calibrated device must be placed as close as practicable to the process sensor, and both devices must be subjected to the same environmental conditions. The accuracy of the temperature measured must be 2.5 percent of the temperature measured by the NIST traceable device or 5 degrees Fahrenheit whichever is greater. (B) Annually validate the temperature sensor by following applicable mechanical and electrical validation procedures in the manufacturer owner's manual. (C) Annually request the temperature sensor manufacturer to certify or re-certify electromotive force (electrical properties) of the thermocouple. (D) Annually replace the temperature sensor with a new certified temperature sensor in lieu of validation. (E) Permanently install a redundant temperature sensor as close as practicable to the process temperature sensor. The sensors must yield a reading within 2.5 percent of each other for thermal oxidizers and catalytic oxidizers. (F) Permanently install a temperature sensor with dual sensors to account for the possibility of failure. [40 CFR 63.3350(e)(10)(iv), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4-5, Minn. R. 7011.7385]
5.61.12	The Permittee must vent emissions from EQUIs 202, 203, 208, and 209 to TREA 24 whenever EQUI

Requirement number	Requirement and citation
	202, 203, 208, or 209 operates, and operate and maintain TREA 24 at all times that any emissions are vented to TREA 24. The Permittee must document periods of non-operation of the control equipment TREA 24 whenever EQUI 202, 203, 208, or 209 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.61.13	If the Permittee replaces TREA 24, the replacement control must meet or exceed the control efficiency requirements of TREA 24 as well as comply with all other requirements of TREA 24. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.61.14	The Permittee must operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.61.15	For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit: - The control efficiency limit specified in this permit for this equipment (96%); or - The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.61.16	Daily Monitoring: The Permittee shall comply with one of the following options: 1) The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written or electronic record of the daily verifications; or 2) Interlock equipment with the temperature monitor and recording device so that the equipment will shut down if the temperature monitor and/or recording device is not operating. [40 CFR 64.3(b), Minn. R. 7017.0200]
5.61.17	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 1 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 60.443(e), 40 CFR 60.445(e), 40 CFR 63.3350(e)(9), 40 CFR 64.3(b)(4)(ii) and Minn. R. 7017.0200, Minn. R. 7007.0800, subp. 4 and 5, Minn. R. 7011.2560]
5.61.18	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.61.19	The Permittee shall maintain a continuous hard copy readout, electronic, or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 60.445(e), 40 CFR 64.9(b), Minn. R. 7011.2560, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]

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5.61.20	Annual Calibration or Replacement: The Permittee shall calibrate or replace the temperature monitor at least once every 12 months and shall maintain a written record of the calibration or replacement and any resulting action. [40 CFR 64.3, Minn. R. 7017.0200]
5.61.21	Oven Pressure Differential Monitoring: The Permittee shall maintain and operate a pressure differential monitoring device that continuously indicates and records the oven pressure differential in the first zone for each oven venting to TREA 24. The monitoring device shall have an accuracy +/- 0.75 percent of the span. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. The Permittee shall record all 3-hour periods (during actual coating operations) when the average pressure differential is greater than -0.007 inches of water column. [40 CFR 64.3(b)(4)(ii), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.61.22	Quarterly Inspections: At least once per calendar quarter or more frequently as required by the manufacturing specification, the Permittee must inspect components that are not subject to wear including structural components, housings, ducts, and hoods. [40 CFR 64.3, Minn. R. 7017.0200]
5.61.23	Semiannual Inspections: At least once each calendar half-year or more frequently as required by the manufacturer specification, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written or electronic record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.61.24	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.61.25	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing temperature limit, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.61.26	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.61.27	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.61.28	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b),

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	Minn. R. 7017.0200]

6. Submittal/action requirements

This section lists most of the submittals required by this permit. Please note that some submittal requirements may appear in the Limits and Other Requirements section, or, if applicable, within a Compliance Schedule section.

Requirement number	Requirement and citation
TFAC 1	3M - Hutchinson Tape Manufacturing Plant
6.1.1	The Permittee must submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee must cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(B)(2)]
6.1.2	The Permittee must submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form CR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(D)]
6.1.3	The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]
COMG 4	7L BACT Conditions and 40 CFR pt. 60, subp. RR
6.2.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 5	LT3 BACT Conditions
6.3.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC monthly calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 8	5L PSD Limits to avoid major modification, 5L SRU Requirements
6.4.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling average calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 9	6L BACT Conditions, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF
6.5.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. As part of the Annual Report, the Permittee must verify and certify that the Facility has maintained minor source status for New Source Review. [Minn. R. 7007.0800, subp. 2(A)]
6.5.2	The Permittee must submit an annual report by the 31st of January. The report must document the VOC monthly calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
6.5.3	Option A: The Permittee shall submit a report: Due by 30 days after end of each calendar half-year. The Permittee shall submit reports semiannually when the TREA 15 temperature drops as defined under 40 CFR 63.443(e). If no such periods occur, the Permittee shall state this in the report. The

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	report shall be submitted with the Semiannual Deviations Report listed in this permit. [40 CFR 60.447(c), Minn. R. 7011.2560]
COMG 14	LM3 BACT Conditions
6.6.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 16	Enterprise Coater BACT Conditions and 40 CFR pt. 60, subp. RR
6.7.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
6.7.2	Option A: The Permittee shall submit a report: Due by 30 days after end of each calendar half-year. The Permittee shall submit reports semiannually when the TREA 12 temperature drops as defined under 40 CFR 63.443(e). If no such periods occur, the Permittee shall state this in the report. The report shall be submitted with the Semiannual Deviations Report listed in this permit. [40 CFR 60.447(c), Minn. R. 7011.2560]
COMG 17	Voyager Coating Line BACT Conditions and 40 CFR pt. 60, subp. RR
6.8.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
6.8.2	Option A: The Permittee shall submit a report: Due by 30 days after end of each calendar half-year. The Permittee shall submit reports semiannually when the TREA 6 temperature drops as defined under 40 CFR 63.443(e). If no such periods occur, the Permittee shall state this in the report. The report shall be submitted with the Semiannual Deviations Report listed in this permit. [40 CFR 60.447(c), Minn. R. 7011.2560]
COMG 18	ST5 and ST6 BACT Conditions
6.9.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 22	22 Coater Limits
6.10.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 25	40 CFR pt. 63, subp. DDDDD
6.11.1	The Permittee must submit a Notification of Compliance Status within 60 days of the effective date of the fuel switch or physical change that resulted in the applicability of a different subcategory. The Notification of Compliance Status must only contain the information specified in 40 CFR 63.7545(e)(1) and (8) (listed below); - A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, description of the fuel(s) burned, and justification for the selection of fuel(s) burned during the compliance demonstration. - In addition to the information required in 40 CFR 63.9(h)(2), the Notification of Compliance Status must include the following certification(s) of compliance and signed by a responsible official: (i) "This facility completed the required initial tune-up for all of the boilers covered by 40 CFR pt. 63 subp. DDDDD at this site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)."

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	(ii) "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)." The Permittee must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to 40 CFR pt. 63, subp. DDDDD, Table 3, and that the assessment is an accurate depiction of the facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended. [40 CFR 63.7530(e), 40 CFR 63.7545(e), Minn. R. 7011.7050]
COMG 26	40 CFR pt. 63, subp. JJJJ
6.12.1	The Permittee must submit a semiannual compliance report: Due by 30 days after end of each calendar half-year. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report must be submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. The compliance report must contain the following information: -Company name and address. -Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report. -Date of report and beginning and ending dates of the reporting period. - If there are no deviations from any emission limitations (emission limit or operating limit) that apply, a statement that there were no deviations from the emission limitations during the reporting period. -For each deviation from an emission limitation (emission limit or operating limit) that applies and that occurs at an affected source where the Permittee is not using a CMS to comply with the emission limitations in 40 CFR pt. 63, subp. JJJJ, the compliance report must contain the following information: (A) The total operating time of the web coating line(s) during the reporting period. (B) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken. (C) An estimate of the quantity of each regulated pollutant emitted over the emission limits in 40 CFR 63.3320 for each monthly period covered in the report if the source failed to meet an applicable emission limit of 40 CFR pt. 63, subp. JJJJ. - For each deviation from an emission limit occurring at an affected source where the Permittee is using a CEMS or CPMS to comply with the emission limit in 40 CFR pt. 63, subp. JJJJ, the Permittee must include the following information: (A) The total operating time of the web coating line(s) during the reporting period. (B) The date and time that each CEMS and CPMS, if applicable, was inoperative except for zero (low-level) and high-level checks. (C) The date and time that each CEMS and CPMS, if applicable, was out-of-control, including the

Requirement number	Requirement and citation
	information in 40 CFR 63.8(c)(8).
	(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
	(E) A summary of the total duration (in hours) of each deviation during the reporting period and the total duration of each deviation as a percent of the total source operating time during that reporting period.
	(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
	(G) A summary of the total duration (in hours) of CEMS and/or CPMS downtime during the reporting period and the total duration of CEMS and/or CPMS downtime as a percent of the total source operating time during that reporting period.
	(H) A breakdown of the total duration of CEMS and/or CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.
	(I) The date of the latest CEMS and/or CPMS certification or audit.
	(J) A description of any changes in CEMS, CPMS, or controls since the last reporting period.
	(K) An estimate of the quantity of each regulated pollutant emitted over the emission limits in 40 CFR 63.3320 for each monthly period covered in the report if the source failed to meet an applicable emission limit of 40 CFR pt. 63, subp. JJJJ. [40 CFR 63.3400(c), Minn. R. 7011.7385]
COMG 29	8L BACT Conditions and 40 CFR pt. 60, subp. RR
6.13.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC monthly calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 31	3L Limits to avoid major modification, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF
6.14.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum and monthly calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
6.14.2	Option A: The Permittee shall submit a report: Due by 30 days after end of each calendar half-year. The Permittee shall submit reports semiannually when the TREA 8 temperature drops as defined under 40 CFR 63.443(e). If no such periods occur, the Permittee shall state this in the report. The report shall be submitted with the Semiannual Deviations Report listed in this permit. [40 CFR 60.447(c), Minn. R. 7011.2560]
COMG 33	7L, 8L, and LT3 combined BACT limit
6.15.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 34	27 Coater Limit to avoid major modification and 40 CFR pt. 60, subp. RR
6.16.1	The Permittee must submit an annual report by the 31st of January. The report must document the

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	VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
6.16.2	Option A: The Permittee shall submit a report: Due by 30 days after end of each calendar half-year. The Permittee shall submit reports semiannually when the TREA 24 temperature drops as defined under 40 CFR 63.443(e). If no such periods occur, the Permittee shall state this in the report. The report shall be submitted with the Semiannual Deviations Report listed in this permit. [40 CFR 60.447(c), Minn. R. 7011.2560]
COMG 35	28 Coater Limit to avoid major modification
6.17.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 41	40 CFR pt. 63, subp. EEEE
6.18.1	The Permittee must submit a compliance report or periodic report semiannually. The report must contain the information specified in 40 CFR 63.2386(c) and (d). The report must be postmarked or electronically submitted by January 31 or July 31, in accordance with 40 CFR 63.2386. For each affected source that is subject to permitting regulations pursuant to 40 CFR pt. 70 or 40 CFR pt. 71, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in 40 CFR 63.2386(b)(1) and (2). [40 CFR 63.2386(b)(3), 40 CFR pt. 63, subp. EEEE(Table 11)(item 1a), Minn. R. 7011.8110]
COMG 43	ST5 Coating Line, 40 CFR pt. 60, subp. RR
6.19.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 2(A)]
COMG 46	H1, 40 CFR pt. 60, subp. RR
6.20.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. As part of the Annual Report, the Permittee must verify and certify that COMG 46 has maintained compliance with 40 CFR 60.440(b). [Minn. R. 7007.0800, subp. 2(A)]
COMG 47	Flexographic Printing, 40 CFR pt. 60, subp. RR
6.21.1	The Permittee must submit an annual report by the 31st of January. The report must document the VOC 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by this permit. As part of the Annual Report, the Permittee must verify and certify that COMG 47 has maintained compliance with 40 CFR 60.440(b). [Minn. R. 7007.0800, subp. 2(A)]
EQUI 105	19J Extruder
6.22.1	PM < 10 micron: The Permittee shall conduct a performance test due before 07/26/2027 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test

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	due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
6.22.2	Particulate Matter: The Permittee shall conduct a performance test due before 07/26/2027 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
6.22.3	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 07/26/2027 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
EQUI 195	10J Extruder
6.23.1	PM < 10 micron: The Permittee shall conduct a performance test due before 07/26/2027 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.

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	Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
6.23.2	Particulate Matter: The Permittee shall conduct a performance test due before 07/26/2027 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
6.23.3	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 07/26/2027 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
EQUI 256	GEN-14
6.24.1	The Permittee shall submit an initial notification: Due 120 days after Initial Startup Date of EQUI 256. The initial notification must include the information in 40 CFR 63.9(b)(2)(i) through (v) and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions). [40 CFR 63.6645(f), Minn. R. 7011.8150]
6.24.2	The Permittee shall submit a notification of date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(1), Minn. R. 7019.0100, subp. 1]

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6.24.3	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(3), Minn. R. 7019.0100, subp. 1]
TREA 6	Voyager Thermal Oxidizer
6.25.1	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 07/11/2027 and every 60 months thereafter to measure VOC destruction efficiency. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
TREA 8	1L/3L Thermal Oxidizer
6.26.1	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 05/11/2030 and every 60 months thereafter to measure VOC control efficiency. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
TREA 24	26/27 Thermal Oxidizer
6.27.1	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 04/23/2029 and every 60 months thereafter to measure control efficiency. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due

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	date requirement but will reset future performance test due dates based on the performance test date. The Permittee must maintain a temporary total enclosure meeting the following criteria to determine the capture efficiency during testing: a. Any natural draft opening (NDO) shall be at least four equivalent diameters from each VOC emitting point. b. The total area of all NDOs shall not exceed five percent of the surface area of the enclosure's four walls, floor, & ceiling. c. The average face velocity of air through all NDOs shall be at least 200 ft/min. The direction of air through all NDOs shall be into the enclosure. d. All access doors & windows not included as NDOs & not included in the calculation of face velocities shall be closed during normal operation of the process. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]

7. Appendices

Appendix A. Insignificant activities and general applicable requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R.	Rule description of the activity	General applicable requirement
Minn. R. 7007.1300, subp. 3(B)(1)	Infrared electric ovens <i>MSL1 Line IR Oven</i> <i>Filtrete UV Ovens</i> <i>Phantom Line IR Oven</i>	Opacity <= 20% (Minn. R. 7011.0110)
Minn. R. 7007.1300, subp. 4	Individual units with potential or actual emissions meeting the criteria in Minn. R. 7007.1300, subp. 4(A)-(D) <i>10J Weed Grinder</i> <i>16J Central Vacuum</i> <i>16J Extruder C (16J Extruder Exhaust Hood)</i> <i>16J Sand Blaster (16J Jet Cleaner Oxidation Exhaust)</i> <i>16J Jet Berringer (16J Jet Cleaner Parts Hood)</i> <i>16J Chopper (16J Weed Grinders 1&2)</i> <i>27 Coater Hot Oil Heating Equipment</i> <i>Tunnel Drum Mix (27 Coater Solution Handling)</i> <i>27 Coater Waster Transfer & Drum Storage</i> <i>28 Coater Cleaning Station</i> <i>28 Coater Pumping Station</i> <i>28 Coater Red Label Room</i> <i>4Y Additive Receiving Hopper (4Y Additive Weigh)</i> <i>4Y Jet Cleaner</i> <i>4Y Central Vacuum</i> <i>4Y Dust Collectors 1 & 2</i> <i>4Y Plasticizer Storage Tanks</i> <i>4Y PMH Grinder</i>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 4 continued	Individual units with potential or actual emissions meeting the criteria in Minn. R. 7007.1300, subp. 4(A)-(D) <i>4Y Resin Receiving Hopper (4Y Resin Storage)</i> <i>4Y Weed Grinder</i> <i>9J Extruder (9J Polypropylene Extruder)</i> <i>Filtrete Making Resin Handling System (Resin Handling System)</i> <i>9J Resin Handling System</i> <i>9J Flake Separator (Acetate Flake Separator)</i> <i>Compounding Room 7 Tanks 1-4 (Adhesive QC Holding Tanks)</i> <i>Adhesive Tanks 1-8</i> <i>Compounding Central Vacuum</i>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)

Minn. R.	Rule description of the activity	General applicable requirement
	<i>Enterprise Solution Handling & Drum Storage</i> <i>9J Jet Cleaner (Extrusion Jet Cleaner)</i> <i>H1 Declumber and Hopper Dust Collector (H1 Coater Material Handling)</i> <i>Handcleaner Hopper and Dust Control</i> <i>Kettle 26A</i> <i>Kettle 42A</i> <i>Kettle 42B</i> <i>Kettle 43A</i> <i>Kettle 43B</i> <i>Kettle 47A</i> <i>Kettle 47B</i> <i>9J Pellet Separator (Pelletized and Powered Material Handling Equipment)</i> <i>Colorant Hopper (Pigment Transfer Hopper)</i> <i>Plasticizer Storage Tanks, Plasticizer Transfer Pumps</i> <i>Filtrete Making Resin Bins and Hoppers (Resin Bins and Hoppers)</i> <i>Resin Storage Tanks</i> <i>Molding Central Vacuum (SOSD Central Vacuum System)</i> <i>South Label Printer (Administrative Printing) (South Label Printer)</i> <i>ST7 Compounding & Storage Tanks (8)</i> <i>ST7 Hot Oil Heating Equipment</i> <i>Tank Farm Truck Unloading</i> <i>Central Shop Paint Booth (Shop Paint Booth)</i> <i>Transfer pumps (11)</i> <i>Transfer station</i> <i>Banbury Mixer (Vinyl Banbury Mixer)</i> <i>Vinyl Roll Mill</i> <i>Vinyl Rubber Cutter</i>	
Minn. R. 7007.1300, subp. 3(D)	Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(D) <i>H1/ST5 Lab</i> <i>Building 52 Lab</i> <i>HAL Lab</i> <i>South Lab</i> <i>Coater 25 Bay Lab</i> <i>HPT Lab</i> <i>HAL North Optical Lab</i> <i>North Lab</i>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(E)	Brazing, soldering, torch-cutting, or welding equipment <i>Central Shop Weld Shop</i> <i>Bldg 14 – CCC & HPT Weld Shop – Mech Room 2</i>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0710/0715)
Minn. R. 7007.1300, subp. 3(F)	Individual units with potential emissions less than 2000 lb/year of certain pollutants	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)

Minn. R.	Rule description of the activity	General applicable requirement
	<i>Mogul Ice Blaster</i> <i>Garage A Ice Blaster</i> <i>Garage A CaCl₂ Mixer/Slurry</i> <i>Garage B CaCl₂ Mixer/Slurry</i> <i>Mix Vessel / LMZ Mill (CCC Mix Vessel / LMZ Mill)</i> <i>Mix Vessel / NEOS Mill (CCC Mix Vessel / NEOS Mill)</i> <i>10J Extruder Material Handling</i> <i>10J Extruder Flake Unloading and Separating</i> <i>16J Extruder Die</i> <i>16J Die Cleaning Station</i> <i>19J Extruder Material Handling Flake Feed Hopper (19J Extruder Flake Feed Hopper)</i> <i>19J Extruder Material Handling Flake Hopper (19J Extruder Flake Hopper)</i> <i>19J Extruder Regrind Feed Hopper</i> <i>19J Extruder Material Handling - Stabilizer 1 Feed Hopper (19J Extruder Antioxidants Hopper 1)</i> <i>19J Extruder Material Handling - Stabilizer 2 Feed Hopper (19J Extruder Antioxidants Hopper 2)</i> <i>19J Extruder Material Handling - Whitener Feed Hopper (19J Extruder Antioxidants Hopper 3)</i> <i>22 Coater Corona Treater</i> <i>6L Coater Flame Treater</i> <i>North Tank 14Q-A-43</i> <i>DCC Compounding Lightning Mixer 4</i> <i>DCC Compounding Lightning Mixers 5</i> <i>DCC Compounding Lightning Mixers 6</i> <i>DCC Compounding Pail Mixer</i> <i>Filtrete Making Media Tester</i> <i>Filtrete Making Process 1</i> <i>Filtrete Making Forming and Bonding</i> <i>Filtrete Making Pyrolysis Oven After Burner</i> <i>Glass Bead Blasters (HPT and DCC)</i> <i>28 Coater Laser</i> <i>Laser Cutting Trials ASOC</i> <i>Tool Shop Molding Steel Plate Cleaning</i> <i>ST5 Corona Treater</i> <i>ST5 Manual Cleaning (ST5 Cleaning)</i> <i>ST5 Compounding Room</i> <i>Static Devices – multiple</i> <i>LT3 Vacuum Cleaner</i> <i>General Printers</i>	
Minn. R. 7007.1300, subp. 3(F) continued	Individual units with potential emissions less than 2000 lb/year of certain pollutants <i>Cooling Tower 31-CT-04</i>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)

Permit Issued: [month day, year]
Permit Expires: [month day, year]

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Minn. R.	Rule description of the activity	General applicable requirement
	<i>Cooling Tower 31-CT-05</i> <i>Formlabs Form 4 MSLA 3D Printer</i> <i>Formlabs Form 3L SLA 3D Printer</i> <i>Voyager Cowles Mixer</i> <i>Voyager Mixers (12)</i> <i>HPT Compounding Large Reactor</i> <i>HPT Compounding Small Reactor</i> <i>Haz Waste Tank 4</i> <i>Haz Waste Tank 5</i> <i>Haz Waste Tank 6</i> <i>North Tank 38-A-146</i> <i>North Tank 38-A-21</i> <i>Tape Dispenser Sand Filling</i> <i>Tank 52 Barrier 1</i> <i>Tank 52 Lab</i> <i>Tank 52 Primer 1</i> <i>Tank 52 Saturant 1</i> <i>Tank 52 Saturant 2</i> <i>NM27 Drum Mix</i> <i>NM27 Cowles Mixer</i>	

Appendix B. Maximum Contents of Materials and Process Rate

Emission Units	Process Rate	Maximum Contents		
COMG 4 7L BACT Conditions and 40 CFR pt. 60, subp. RR (EQUIs 97, 98, and 99)	EQUI 97 – 579.4 lb material/hour	VOC	2.3E-04	lb/lb matl
	EQUI 98 – 774.6 lb material/hour	VOC	5.0E-03	lb/lb matl
	EQUI 99 – 2630.5 lb material/hour	VOC	7.0E-03	lb/lb matl
COMG 5 LT3 BACT Conditions (EQUIs 163, 164, 165, 166)	EQUI 163 – 2.53 lb material/hour	VOC	0.20	lb/lb matl
	EQUI 164 – 2.53 lb material/hour	VOC	0.80	lb/lb matl
	EQUI 165 – 75 lb material/hour	VOC	0.20	lb/lb matl
	EQUI 166 – 75 lb material/hour	VOC	0.80	lb/lb matl
COMG 8 5L PSD Limits to avoid major modification, 5L SRU Requirements (EQUIs 14, 184, 188, and TREA 11)	EQUI 14 - 0.0078 MMscf/hr	-	-	-
	EQUI 184 – 1 lb/lb	VOC	46.11	lb/lb matl
	EQUI 188 – 4,059 lb material/hour	VOC	0.65	lb/lb matl
COMG 9 6L BACT Conditions, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF (EQUIs 15, 16, 17, 26, 112, and TREA 15)	EQUI 15 – 911 lb material/hour	VOC	0.19	lb/lb matl
	EQUI 16 – 911 lb material/hour	VOC	0.76	lb/lb matl
	EQUI 17 – 1,062 lb material/hour	VOC	0.20	lb/lb matl
	EQUI 26 – 0.0027 MMscf/hr	-	-	-
	EQUI 112 – 1767.84 lb material/hour	VOC	7.0E-03	lb/lb matl
COMG 14 5L PSD Limits to avoid major modification, 5L SRU Requirements (EQUIs 24, 27, 28, 29, 30, and 31)	EQUI 24 – 357.50 lb material/hour	VOC	0.40	lb/lb matl
	EQUI 27 – 357.50 lb material/hour	VOC	0.20	lb/lb matl
	EQUI 28 – 357.50 lb material/hour	VOC	0.40	lb/lb matl
	EQUI 29 – 357.50 lb material/hour	VOC	0.20	lb/lb matl
	EQUI 30 – 357.50 lb material/hour	VOC	0.40	lb/lb matl

Emission Units	Process Rate	Maximum Contents		
	EQUI 31 – 357.50 lb material/hour	VOC	0.40	lb/lb matl
COMG 16 Enterprise Coater BACT Conditions and 40 CFR pt. 60, subp. RR (EQUIs 101, 102, 103, and TREA 12)	EQUI 101 – 1,650 lb material/hour	VOC	0.17	lb/lb matl
	EQUI 102 – 1,650 lb material/hour	VOC	0.33	lb/lb matl
	EQUI 103 – 0.00647 MMscf/hr	-	-	-
COMG 17 Voyager Coating Line BACT Conditions and 40 CFR pt. 60, subp. RR (EQUIs 46, 47, 48, 49, 50, 51, and TREA 6)	EQUI 46 – 138.6 lb material/hour	VOC	0.18	lb/lb matl
	EQUI 47 – 138.6 lb material/hour	VOC	0.07	lb/lb matl
	EQUI 48 – 138.6 lb material/hour	VOC	0.65	lb/lb matl
	EQUI 49 – 805.94 lb material/hour	VOC	0.20	lb/lb matl
	EQUI 50 – 805.94 lb material/hour	VOC	0.08	lb/lb matl
	EQUI 51 – 805.94 lb material/hour	VOC	0.72	lb/lb matl
COMG 18 ST5 and ST6 BACT Conditions (EQUIs 33, 34, 35, 36, 38, 271, and 272)	EQUI 33 – 1 lb/lb	VOC	1.03	lb/hr
	EQUI 34 – 1 lb/lb	VOC	1.03	lb/hr
	EQUI 35 – 0.05 lb material/hour	VOC	1.00	hr/hr
	EQUI 36 – 1 lb/lb	VOC	1.03	lb/hr
	EQUI 38 – 1 lb/lb (Coating Station, not including equipment leaks)	VOC	0.24	lb/hr
	EQUI 271 – 1 lb/lb	VOC	0.06	lb/hr
	EQUI 272 – 1 lb/lb	VOC	0.26	lb/hr
COMG 22 22 Coater Limits (EQUIs 21 and 22)	EQUI 21 - 273.13 lb material/hour	VOC	0.40	lb/lb matl
	EQUI 22 - 273.13 lb material/hour	VOC	0.10	lb/lb matl
COMG 29 8L BACT Conditions and 40 CFR pt. 60, subp. RR (EQUIs 157-162)	EQUI 157 – 620.40 lb material/hour	VOC	1.0E-04	lb/lb matl
	EQUI 158 – 620.40 lb material/hour	VOC	4.0E-04	lb/lb matl
	EQUI 159 – 226.60 lb material/hour	VOC	2.1E-03	lb/lb matl

Emission Units	Process Rate	Maximum Contents		
	EQUI 160 – 226.60 lb material/hour	VOC	8.5E-03	lb/lb matl
	EQUI 161 – 3,614.60 lb material/hour	VOC	6.5E-04	lb/lb matl
	EQUI 162– 3,614.60 lb material/hour	VOC	2.6E-03	lb/lb matl
COMG 31 3L Limits to avoid major modification, 40 CFR pt. 60, subp. RR, and 40 CFR pt. 60, subp. FFF (EQUIs 130-143, TREA 8)	EQUI 130 - 454,620 acf/hr	VOC	2.1E-04	lb/acf
	EQUI 131 - 454,620 acf/hr	VOC	8.4E-04	lb/acf
	EQUI 132 – 262,680 acf/hr	VOC	2.1E-04	lb/acf
	EQUI 133 – 262,680 acf/hr	VOC	8.4E-04	lb/acf
	EQUI 134 - 454,620 acf/hr	VOC	2.1E-04	lb/acf
	EQUI 135 - 454,620 acf/hr	VOC	8.4E-04	lb/acf
	EQUI 136 – 262,680 acf/hr	VOC	2.1E-04	lb/acf
	EQUI 137 – 262,680 acf/hr	VOC	8.4E-04	lb/acf
	EQUI 138 – 262,680 acf/hr	VOC	2.1E-04	lb/acf
	EQUI 139 – 262,680 acf/hr	VOC	8.4E-04	lb/acf
	EQUI 140 – 1,818,540 acf/hr	VOC	2.1E-04	lb/acf
	EQUI 141 – 606,180 acf/hr	VOC	8.4E-04	lb/acf
	EQUI 142 – 606,180 acf/hr	VOC	8.4E-04	lb/acf
	EQUI 143 – 606,180 acf/hr	VOC	8.4E-04	lb/acf
COMG 33 7L, 8L, and LT3 combined BACT limit (EQUIs 97-99, and 157-166)	EQUI 97 – 579.43 lb material/hour	VOC	2.3E-04	lb/lb matl
	EQUI 98 – 774.62 lb material/hour	VOC	5.0E-03	lb/lb matl
	EQUI 99 – 2,630.54 lb material/hour	VOC	7.0E-03	lb/lb matl
	EQUI 157 – 620.40 lb material/hour	VOC	1.0E-04	lb/lb matl
	EQUI 158 – 620.40 lb	VOC	4.0E-04	lb/lb matl

Emission Units	Process Rate	Maximum Contents		
	material/hour			
	EQUI 159 – 226.60 lb material/hour	VOC	2.1E-03	lb/lb matl
	EQUI 160 – 226.60 lb material/hour	VOC	8.5E-03	lb/lb matl
	EQUI 161 – 3,614.60 lb material/hour	VOC	6.5E-04	lb/lb matl
	EQUI 162 – 3,614.60 lb material/hour	VOC	2.6E-03	lb/lb matl
	EQUI 163 – 2.53 lb material/hour	VOC	0.20	lb/lb matl
	EQUI 164 – 2.53 lb material/hour	VOC	0.80	lb/lb matl
	EQUI 165 – 75.0 lb material/hour and lb VOC/hour	VOC	0.20	lb/lb matl
	EQUI 166 – 75.0 lb material/hour	VOC	0.80	lb/lb matl
COMG 34 27 Coater Limit to avoid major modification and 40 CFR pt. 60, subp. RR (EQUIs 202 and 203)	EQUI 202 – 1,896,000 acf/hour	VOC	1.1E-03	lb/acf
	EQUI 203 – 1,896,000 acf/hour	VOC	2.7E-04	lb/acf
COMG 35 28 Coater Limit to avoid major modification (EQUIs 204 and 205)	EQUI 204 – 66.0 lb material/hour	VOC	0.80	lb/lb matl
	EQUI 205 – 66.0 lb material/hour	VOC	0.20	lb/lb matl
COMG 46 H1, 40 CFR pt. 60, subp. RR (EQUIs 23, 92, and 222)	EQUI 23 - 2,054 lb material/hour	VOC	0.01	lb/lb matl
COMG 47 Flexographic Printing, 40 CFR pt. 60, subp. RR (EQUIs 224-229)	EQUI 224 – 62.7 lb material/hour	VOC	0.05	lb/lb matl
	EQUI 225 – 62.7 lb material/hour	VOC	0.05	lb/lb matl
	EQUI 226 – 62.7 lb material/hour	VOC	0.05	lb/lb matl
	EQUI 227 – 62.7 lb material/hour	VOC	0.05	lb/lb matl
	EQUI 228 – 62.7 lb material/hour	VOC	0.05	lb/lb matl
	EQUI 229 – 62.7 lb material/hour	VOC	0.05	lb/lb matl

Appendix C. 40 CFR Part 60, Supart A – General Provisions

§ 60.1 Applicability.

(a) Except as provided in subparts B, Ba, and C of this part, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.*

(1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.

(3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

§ 60.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable “annual asset guideline repair allowance percentage” specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any “excluded additions” as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading ‘Department of Energy-Clean Coal Technology’, up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

Force majeure means, for purposes of § 60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

- (1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
- (3) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and
- (4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

Startup means the setting in operation of an affected facility for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part; and/or
- (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

§ 60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

m³—cubic meter

mg—milligram—10⁻³ gram

mm—millimeter—10⁻³ meter

Mg—megagram—10⁶ gram

mol—mole

N—newton

ng—nanogram—10⁻⁹ gram

nm—nanometer—10⁻⁹ meter

Pa—pascal

s—second

V—volt

W—watt

Ω—ohm

μg—microgram—10⁻⁶ gram

(b) Other units of measure:

Btu—British thermal unit

°C—degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

°F—degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter

lpm—liter per minute

lb—pound

meq—milliequivalent

min—minute

ml—milliliter

mol. wt.—molecular weight

ppb—parts per billion

ppm—parts per million

psia—pounds per square inch absolute

psig—pounds per square inch gage

°R—degree Rankine

scf—cubic feet at standard conditions

scfh—cubic feet per hour at standard conditions

scm—cubic meter at standard conditions

sec—second

sq ft—square feet

std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide

CO—carbon monoxide

CO₂—carbon dioxide

HCl—hydrochloric acid

Hg—mercury

H₂O—water

H₂S—hydrogen sulfide

H₂SO₄—sulfuric acid

N₂—nitrogen

NO—nitric oxide

NO₂—nitrogen dioxide

NO_x—nitrogen oxides

O₂—oxygen

SO₂—sulfur dioxide

SO₃—sulfur trioxide

SO_x—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

§ 60.4 Address.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following table.

Table 1 to Paragraph (a)		
Region	Address	State
I	Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.
II	Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278	New Jersey, New York, Puerto Rico, Virgin Islands.
III	Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.
IV	Director, Air and Radiation Division, 61 Forsyth Street SW, Atlanta, Georgia 30303-8960	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.
V	Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.
VI	Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102	Arkansas, Louisiana, New Mexico, Oklahoma, Texas.
VII	Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219	Iowa, Kansas, Missouri, Nebraska.

Table 1 to Paragraph (a)

Region	Address	State
VIII	Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming.
IX	Director, Enforcement and Compliance Assurance Division (ENF 2-1), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105	Arizona, California, Hawaii and Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau.
X	Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101	Alaska, Oregon, Idaho, Washington.

(b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(1) [Reserved]

(2) State of Alabama: Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.

(3) State of Alaska, Department of Environmental Conservation, Pouch O, Juneau, AK 99811.

(4) Arizona:

Arizona Department of Environmental Quality, Suite #160, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 301 West Jefferson Street, Phoenix, AZ 85003.

Pima County Department of Environmental Quality, 33 North Stone Avenue, Suite 700, Tucson, AZ 85701.

Pinal County Air Quality Department, 31 North Pinal Street, Building F, Florence, AZ 85132.

Note 1 to paragraph (b)(4):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(5) State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, AR 72209.

(6) California:

Amador Air District, 810 Court Street, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 2551 W Avenue H, Lancaster, CA 93536.

Bay Area Air Quality Management District, 375 Beale Street, Suite 600, San Francisco, CA 94105.

Butte County Air Quality Management District, 629 Entler Avenue, Suite 15, Chico, CA 95928.

Calaveras County Air Pollution Control District, 891 Mountain Ranch Road, Building E, San Andreas, CA 95249.

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 330 Fair Lane, Placerville, CA 95667-4100.

Eastern Kern Air Pollution Control District, 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370.

Feather River Air Quality Management District, 541 Washington Avenue, Yuba City, CA 95991.

Glenn County Air Pollution Control District, 720 N Colusa Street, P.O. Box 351, Willows, CA 95988-0351.

Great Basin Unified Air Pollution Control District, 157 Short Street, Bishop, CA 93514-3537.

Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2839.

Lake County Air Quality Management District, 2617 S Main St., Lakeport, CA 95453-5405.

Lassen County Air Pollution Control District, 720 South St., Susanville, CA 96130.

Mariposa County Air Pollution Control District, P.O. Box 5, Mariposa, CA 95338.

Mendocino County Air Quality Management District, 306 E Gobbi Street, Ukiah, CA 95482-5511.

Modoc County Air Pollution Control District, 202 W 4th Street, Alturas, CA 96101.

Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310.

Monterey Bay Air Resources District, 24580 Silver Cloud Court, Monterey, CA 93940.

North Coast Unified Air Quality Management District, 707 L Street, Eureka, CA 95501-3327.

Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, Grass Valley, CA 95945-2509.

Northern Sonoma County Air Pollution Control District, 150 Matheson Street, Healdsburg, CA 95448-4908.

Placer County Air Pollution Control District, 110 Maple Street, Auburn, CA 95603.

Sacramento Metropolitan Air Quality Management District, 777 12th Street, Suite 300, Sacramento, CA 95814-1908.

San Diego County Air Pollution Control District, 10124 Old Grove Road, San Diego, CA 92131-1649.

San Joaquin Valley Air Pollution Control District, 1990 E Gettysburg, Fresno, CA 93726.

San Luis Obispo County Air Pollution Control District, 3433 Roberto Court, San Luis Obispo, CA 93401-7126.

Santa Barbara County Air Pollution Control District, 260 North San Antonio Road, Suite A, Santa Barbara, CA 93110-1315.

Shasta County Air Quality Management District, 1855 Placer Street, Suite 101, Redding, CA 96001-1759.

Siskiyou County Air Pollution Control District, 525 So. Foothill Drive, Yreka, CA 96097-3036.

South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4182.

Tehama County Air Pollution Control District, P.O. Box 1169 (1834 Walnut Street), Red Bluff, CA 96080-0038.

Tuolumne County Air Pollution Control District, 2 South Green St., Sonora, CA 95370-4618.

Ventura County Air Pollution Control District, 4567 Telephone Road, 2nd Floor, Ventura, CA 93003-5417.

Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95618.

Note 2 to paragraph (b)(6):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(7) State of Colorado, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80222-1530.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(8) State of Connecticut, Compliance Analysis and Coordination Unit, Bureau of Air Management, Department of Energy and Environmental Protection, 79 Elm Street, 5th Floor, Hartford, CT 06106-5127.

(9) State of Delaware, Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.

(10) District of Columbia, Department of Public Health, Air Quality Division, 51 N Street, NE., Washington, DC 20002.

(11) State of Florida: Florida Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400.

(12) State of Georgia: Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.

(13) Hawaii:

Clean Air Branch, Hawaii Department of Health, 2827 Waimano Home Road, #130 Pearl City, HI 96782.

Note 4 to paragraph (b)(13):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(14) State of Idaho, Department of Health and Welfare, Statehouse, Boise, ID 83701.

(15) State of Illinois: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, Springfield, Illinois 62794.

(16) State of Indiana: Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(17) State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, IA 50322.

(18) State of Kansas: Kansas Department of Health and Environment, Bureau of Air and Radiation, 1000 S.W. Jackson, Suite 310, Topeka, KS 66612-1366.

(19) Commonwealth of Kentucky: Kentucky Department for Environmental Protection, Division for Air Quality, 300 Sower Boulevard, 2nd Floor, Frankfort, Kentucky 40601 or local agency, Louisville Metro Air Pollution Control District, 701 W. Ormsby Ave., Suite 303, Louisville, Kentucky 40203.

(20) State of Louisiana: Louisiana Department of Environmental Quality, P.O. Box 4301, Baton Rouge, Louisiana 70821-4301.

Note:

For a list of delegated standards for Louisiana (excluding Indian country), see paragraph (e)(2) of this section.

(21) State of Maine, Maine Department of Environmental Protection, Bureau of Air Quality, 17 State House Station, Augusta, ME 04333-0017.

(22) State of Maryland, Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, Maryland 21230.

(23) Commonwealth of Massachusetts, Massachusetts Department of Environmental Protection, Division of Air and Climate Programs, One Winter Street, Boston, MA 02108.

(24) State of Michigan: Michigan Department of Natural Resources and Environment, Air Quality Division, P.O. Box 30028, Lansing, Michigan 48909.

(25) State of Minnesota: Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road North, St. Paul, Minnesota 55155.

(26) State of Mississippi: Hand Deliver or Courier: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, 515 East Amite Street, Jackson, Mississippi 39201, Mailing Address: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, P.O. Box 2261, Jackson, Mississippi 39225.

(27) State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, MO 65102.

(28) State of Montana, Department of Environmental Quality, 1520 E. 6th Ave., PO Box 200901, Helena, MT 59620-0901.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(29) State of Nebraska, Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, NE 68509.

Lincoln-Lancaster County Health Department, Division of Environmental Health, 2200 St. Marys Avenue, Lincoln, NE 68502

(30) Nevada:

Nevada Division of Environmental Protection, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.

Clark County Division of Air Quality, 500 S Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.

Northern Nevada Public Health, Air Quality Management Division, 1001 E 9th Street, Building B, Reno, NV 89512.

Note 7 to paragraph (b)(30):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(31) State of New Hampshire, New Hampshire Department of Environmental Services, Air Resources Division, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

(32) State of New Jersey: New Jersey Department of Environmental Protection, Division of Environmental Quality, Enforcement Element, John Fitch Plaza, CN-027, Trenton, NJ 08625.

(1) The following table lists the specific source and pollutant categories that have been delegated to the states in Region II. The (X) symbol is used to indicate each category that has been delegated.

Subpart	State			
	New Jersey	New York	Puerto Rico	Virgin Islands
D	Fossil-Fuel Fired Steam Generators for Which Construction Commenced After August 17, 1971 (Steam Generators and Lignite Fired Steam Generators)	X	X	X
Da	Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978	X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X
E	Incinerators	X	X	X
F	Portland Cement Plants	X	X	X
G	Nitric Acid Plants	X	X	X
H	Sulfuric Acid Plants	X	X	X
I	Asphalt Concrete Plants	X	X	X
J	Petroleum Refineries—(All Categories)	X	X	X
K	Storage Vessels for Petroleum Liquids Constructed After June 11, 1973, and prior to May 19, 1978	X	X	X
Ka	Storage Vessels for Petroleum Liquids Constructed After May 18, 1978	X	X	
L	Secondary Lead Smelters	X	X	X
M	Secondary Brass and Bronze Ingot Production Plants	X	X	X
N	Iron and Steel Plants	X	X	X
O	Sewage Treatment Plants	X	X	X
P	Primary Copper Smelters	X	X	X
Q	Primary Zinc Smelters	X	X	X
R	Primary Lead Smelters	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate	X	X	X

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
Y	Coal Preparation Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces	X	X	X	X
AAa	Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels in Steel Plants	X	X	X	
BB	Kraft Pulp Mills	X	X	X	
CC	Glass Manufacturing Plants	X	X	X	
DD	Grain Elevators	X	X	X	
EE	Surface Coating of Metal Furniture	X	X	X	
GG	Stationary Gas Turbines	X	X	X	
HH	Lime Plants	X	X	X	
KK	Lead Acid Battery Manufacturing Plants	X	X		
LL	Metallic Mineral Processing Plants	X	X	X	
MM	Automobile and Light-Duty Truck Surface Coating Operations	X	X		
NN	Phosphate Rock Plants	X	X		
PP	Ammonium Sulfate Manufacturing Plants	X	X		
QQ	Graphic Art Industry Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of Volatile Organic Compounds in Synthetic Organic Chemical Manufacturing Industry	X		X	
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals	X	X	X	
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X		X	
HHH	Synthetic Fiber Production Facilities	X		X	

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
JJJ	Petroleum Dry Cleaners	X	X	X	
KKK	Equipment Leaks of VOC from Onshore Natural Gas Processing Plants				
LLL	Onshore Natural Gas Processing Plants; SO ₂ Emissions		X		
OOO	Nonmetallic Mineral Processing Plants		X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	X	

(33) State of New Mexico: New Mexico Environment Department, P.O. Box 5469, Santa Fe, New Mexico 87502-5469. Note: For a list of delegated standards for New Mexico (excluding Bernalillo County and Indian country), see paragraph (e)(1) of this section.

(34) New York: New York State Department of Environmental Conservation, 50 Wolf Road Albany, New York 12233, attention: Division of Air Resources.

(35) State of North Carolina: North Carolina Department of Environmental Quality, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641 or local agencies, Forsyth County Office of Environmental Assistance and Protection, 201 North Chestnut Street, Winston-Salem, North Carolina 27101-4120; Mecklenburg County Land Use and Environmental Services Agency, Air Quality, 2145 Suttle Avenue, Charlotte, North Carolina 28208; Western North Carolina Regional Air Quality Agency, 125 S. Lexington Ave., Suite 101, Asheville, North Carolina 28801-3661.

(36) State of North Dakota: North Dakota Department of Environmental Quality, 918 East Divide Avenue, Bismarck, ND 58501-1947.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(37) State of Ohio:

(i) Medina, Summit and Portage Counties; Director, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308.

(ii) Stark County; Director, Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, Ohio 44702-1544.

(iii) Butler, Clermont, Hamilton, and Warren Counties; Director, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.

(iv) Cuyahoga County; Commissioner, Cleveland Department of Public Health, Division of Air Quality, 75 Erieview Plaza 2nd Floor, Cleveland, Ohio 44114.

(v) Clark, Darke, Greene, Miami, Montgomery, and Preble Counties; Director, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, Ohio 45422-1280.

(vi) Lucas County and the City of Rossford (in Wood County); Director, City of Toledo, Division of Environmental Services, 348 South Erie Street, Toledo, OH 43604.

(vii) Adams, Brown, Lawrence, and Scioto Counties; Portsmouth Local Air Agency, 605 Washington Street, Third Floor, Portsmouth, OH 45662.

- (viii) Allen, Ashland, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Marion, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert Williams, Wood (Except City of Rossford), and Wyandot Counties; Ohio Environmental Protection Agency, Northwest District Office, Air Pollution Control, 347 North Dunbridge Road, Bowling Green, Ohio 43402.
- (ix) Ashtabula, Carroll, Columbiana, Holmes, Lorain, and Wayne Counties; Ohio Environmental Protection Agency, Northeast District Office, Air Pollution Unit, 2110 East Aurora Road, Twinsburg, OH 44087.
- (x) Athens, Belmont, Coshocton, Gallia, Guemsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Tuscarawas, Vinton, and Washington Counties; Ohio Environmental Protection Agency, Southeast District Office, Air Pollution Unit, 2195 Front Street, Logan, OH 43138.
- (xi) Champaign, Clinton, Highland, Logan, and Shelby Counties; Ohio Environmental Protection Agency, Southwest District Office, Air Pollution Unit, 401 East Fifth Street, Dayton, Ohio 45402-2911.
- (xii) Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Morrow, Pickaway, and Union Counties; Ohio Environmental Protection Agency, Central District Office, Air Pollution control, 50 West Town Street, Suite 700, Columbus, Ohio 43215.
- (xiii) Geauga and Lake Counties; Lake County General Health District, Air Pollution Control, 33 Mill Street, Painesville, OH 44077.
- (xiv) Mahoning and Trumbull Counties; Mahoning-Trumbull Air Pollution Control Agency, 345 Oak Hill Avenue, Suite 200, Youngstown, OH 44502.
- (38) State of Oklahoma, State of Oklahoma Department of Environmental Quality, Air Quality Division, P.O. Box 1677, Oklahoma City, OK 73101-1677.
- (39) State of Oregon.
- (i) Oregon Department of Environmental Quality (ODEQ), 811 SW Sixth Avenue, Portland, OR 97204-1390, <http://www.deq.state.or.us>.
- (ii) Lane Regional Air Pollution Authority (LRAPA), 1010 Main Street, Springfield, Oregon 97477, <http://www.lrapa.org>.
- (40)
- (i) City of Philadelphia, Department of Public Health, Air Management Services, 321 University Avenue, Philadelphia, Pennsylvania 19104.
- (ii) Commonwealth of Pennsylvania, Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.
- (iii) Allegheny County Health Department, Bureau of Environmental Quality, Division of Air Quality, 301 39th Street, Pittsburgh, Pennsylvania 15201.
- (41) State of Rhode Island, Rhode Island Department of Environmental Management, Office of Air Resources, 235 Promenade Street, Providence, RI 02908.
- (42) State of South Carolina: South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201.
- (43) State of South Dakota, Air Quality Program, Department of Agriculture and Natural Resources, Joe Foss Building, 523 East Capitol, Pierre, SD 57501-3181.

(44) State of Tennessee: Tennessee Department of Environment and Conservation, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243, or local agencies, Knox County Air Quality Management—Department of Public Health, 140 Dameron Avenue, Knoxville, Tennessee 37917; Metro Public Health Department, Pollution Control Division, 2500 Charlotte Ave., Nashville, Tennessee 37209; Chattanooga-Hamilton County Air Pollution Control Bureau, 6125 Preservation Drive, Chattanooga, Tennessee 37416; Shelby County Health Department, Pollution Control Section, 814 Jefferson Avenue, Memphis, Tennessee 38105.

(45) State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

(46) State of Utah, Division of Air Quality, Department of Environmental Quality, P.O. Box 144820, Salt Lake City, UT 84114-4820.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(47) State of Vermont, Agency of Natural Resources, Department of Environmental Conservation, Air Quality and Climate Division, Davis 2, One National Life Drive, Montpelier, VT 05620-3802.

(48) Commonwealth of Virginia, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia 23219.

(49) *State of Washington.*

(i) Washington State Department of Ecology (Ecology), P.O. Box 47600, Olympia, WA 98504-7600, <http://www.ecy.wa.gov/>

(ii) Benton Clean Air Authority (BCAA), 650 George Washington Way, Richland, WA 99352-4289, <http://www.bcaa.net/>

(iii) Northwest Air Pollution Control Authority (NWAPA), 1600 South Second St., Mount Vernon, WA 98273-5202, <http://www.nwair.org/>

(iv) Olympic Regional Clean Air Agency (ORCAA), 909 Sleater-Kinney Road S.E., Suite 1, Lacey, WA 98503-1128, <http://www.orcaa.org/>

(v) Puget Sound Clean Air Agency (PSCAA), 110 Union Street, Suite 500, Seattle, WA 98101-2038, <http://www.pscleanair.org/>

(vi) Spokane County Air Pollution Control Authority (SCAPCA), West 1101 College, Suite 403, Spokane, WA 99201, <http://www.scapca.org/>

(vii) Southwest Clean Air Agency (SWCAA), 1308 NE. 134th St., Vancouver, WA 98685-2747, <http://www.swcleanair.org/>

(viii) Yakima Regional Clean Air Authority (YRCAA), 6 South 2nd Street, Suite 1016, Yakima, WA 98901, <http://co.yakima.wa.us/cleanair/default.htm>

(ix) The following table lists the delegation status of the New Source Performance Standards for the State of Washington. An "X" indicates the subpart has been delegated, subject to all the conditions and limitations set forth in Federal law and the letters granting delegation. Some authorities cannot be delegated and are retained by EPA. Refer to the letters granting delegation for a discussion of these retained authorities. The dates noted at the end of the table indicate the effective dates of Federal rules that have been delegated. Authority for implementing and enforcing any amendments made to these rules after these effective dates are not delegated.

NSPS Subparts Delegated to Washington Air Agencies

Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
A General Provisions	X	X	X	X	X	X	X	X
B Adoption and Submittal of State Plans for Designated Facilities								
C Emission Guidelines and Compliance Times								
Cb Large Municipal Waste Combustors that are Constructed on or before September 20, 1994 (Emission Guidelines and Compliance Times)								
Cc Municipal Solid Waste Landfills (Emission Guidelines and Compliance Times)								
Cd Sulfuric Acid Production Units (Emission Guidelines and Compliance Times)								
Ce Hospital/Medical/Infectious Waste Incinerators (Emission Guidelines and Compliance Times)								
D Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971	X	X	X	X	X	X	X	X
Da Electric Utility Steam Generating Units for which Construction is Commenced after September 18, 1978	X	X	X	X	X	X	X	X
Db Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X	X	X	X	X
Dc Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X	X	X	X	X
E Incinerators	X	X	X	X	X	X	X	X
Ea Municipal Waste Combustors for which Construction is Commenced after December 20, 1989 and on or before September 20, 1994	X	X	X	X	X	X	X	X
Eb—Large Municipal Waste Combustors		X		X	X	X		
Ec—Hospital/Medical/Infectious Waste Incinerators	X	X	X	X	X	X		
F Portland Cement Plants	X	X	X	X	X	X	X	X
G Nitric Acid Plants	X	X	X	X	X	X	X	X
H Sulfuric Acid Plants	X	X	X	X	X	X	X	X
I Hot Mix Asphalt Facilities	X	X	X	X	X	X	X	X
J Petroleum Refineries	X	X	X	X	X	X	X	X

NSPS Subparts Delegated to Washington Air Agencies

Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
K Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after June 11, 1973 and prior to May 19, 1978	X	X	X	X	X	X	X	X
Ka Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after May 18, 1978 and prior to July 23, 1984	X	X	X	X	X	X	X	X
Kb VOC Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984	X	X	X	X	X	X	X	X
L Secondary Lead Smelters	X	X	X	X	X	X	X	X
M Secondary Brass and Bronze Production Plants	X	X	X	X	X	X	X	X
N Primary Emissions from Basic Oxygen Process Furnaces for which Construction is Commenced after June 11, 1973	X	X	X	X	X	X	X	X
Na Secondary Emissions from Basic Oxygen Process Steel-making Facilities for which Construction is Commenced after January 20, 1983	X	X	X	X	X	X	X	X
O Sewage Treatment Plants	X	X	X	X	X	X	X	X
P Primary Copper Smelters	X	X	X	X	X	X	X	X
Q Primary Zinc Smelters	X	X	X	X	X	X	X	X
R Primary Lead Smelters	X	X	X	X	X	X	X	X
S Primary Aluminum Reduction Plants ¹⁰	X							
T Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X	X	X	X	X
U Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X	X	X	X	X
V Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X	X	X	X	X
W Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X	X	X	X	X
X Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X	X	X	X	X
Y Coal Preparation Plants	X	X	X	X	X	X	X	X
Z Ferroalloy Production Facilities	X	X	X	X	X	X	X	X

NSPS Subparts Delegated to Washington Air Agencies								
Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
AA Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974 and on or before August 17, 1983	X	X	X	X	X	X	X	X
AAa Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 7, 1983	X	X	X	X	X	X	X	X
BB Kraft Pulp Mills ¹¹	X							
CC Glass Manufacturing Plants	X	X	X	X	X	X	X	X
DD Grain Elevators	X	X	X	X	X	X	X	X
EE Surface Coating of Metal Furniture	X	X	X	X	X	X	X	X
GG Stationary Gas Turbines	X	X	X	X	X	X	X	X
HH Lime Manufacturing Plants	X	X	X	X	X	X	X	X
KK Lead-Acid Battery Manufacturing Plants	X	X	X	X	X	X	X	X
LL Metallic Mineral Processing Plants	X	X	X	X	X	X	X	X
MM Automobile and Light Duty Truck Surface Coating Operations	X	X	X	X	X	X	X	X
NN Phosphate Rock Plants	X	X	X	X	X	X	X	X
PP Ammonium Sulfate Manufacture	X	X	X	X	X	X	X	X
QQ Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X	X	X	X	X
RR Pressure Sensitive Tape and Label Surface Coating Standards	X	X	X	X	X	X	X	X
SS Industrial Surface Coating: Large Appliances	X	X	X	X	X	X	X	X
TT Metal Coil Surface Coating	X	X	X	X	X	X	X	X
UU Asphalt Processing and Asphalt Roof Manufacture	X	X	X	X	X	X	X	X
VV Equipment Leaks of VOC in Synthetic Organic Chemical Manufacturing Industry	X	X	X	X	X	X	X	X
WW Beverage Can Surface Coating Industry	X	X	X	X	X	X	X	X
XX Bulk Gasoline Terminals	X	X	X	X	X	X	X	X
AAA New Residential Wood Heaters								
BBB Rubber Tire Manufacturing Industry	X	X	X	X	X	X	X	X
DDD VOC Emissions from Polymer Manufacturing Industry	X	X	X	X	X	X	X	X

NSPS Subparts Delegated to Washington Air Agencies								
Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
FFF Flexible Vinyl and Urethane Coating and Printing	X	X	X	X	X	X	X	X
GGG Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X	X	X	X	X
HHH Synthetic Fiber Production Facilities	X	X	X	X	X	X	X	X
III VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Air Oxidation Unit Processes	X	X	X	X	X	X	X	X
JJJ Petroleum Dry Cleaners	X	X	X	X	X	X	X	X
KKK Equipment Leaks of VOC from Onshore Natural Gas Processing Plants	X	X	X	X	X	X	X	X
LLL Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X	X	X	X	X
NNN VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations	X	X	X	X	X	X	X	X
OOO Nonmetallic Mineral Processing Plants			X		X		X	
PPP Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X	X	X	X	X
QQQ VOC Emissions from Petroleum Refinery Wastewater Systems	X	X	X	X	X	X	X	X
RRR VOCs from Synthetic Organic Chemical Manufacturing Industry Reactor Processes	X	X	X	X	X	X	X	X
SSS Magnetic Tape Coating Facilities	X	X	X	X	X	X	X	X
TTT Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X	X	X	X	X
UUU Calciners and Dryers in Mineral Industries	X	X	X	X	X	X	X	X
VVV Polymeric Coating of Supporting Substrates Facilities	X	X	X	X	X	X	X	X
WWW Municipal Solid Waste Landfills	X	X	X	X	X	X	X	X
AAAA Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001	X	X		X	X	X		X
BBBB Small Municipal Waste Combustion Units Constructed on or before August 30, 1999 (Emission Guidelines and Compliance Times)								
CCCC Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November,	X	X		X	X	X		X

NSPS Subparts Delegated to Washington Air Agencies								
Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001								
DDDD Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or before November 30, 1999 (Emission Guidelines and Compliance Times)								
¹ Any authority within any subpart of this part that is not delegable, is not delegated. Please refer to Attachment B to the delegation letters for a listing of the NSPS authorities excluded from delegation.								
² Washington State Department of Ecology, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
³ Benton Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
⁴ Northwest Air Pollution Authority, for all NSPS delegated, as in effect on July 1, 2000.								
⁵ Olympic Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
⁶ Puget Sound Clean Air Authority, for all NSPS delegated, as in effect on July 1, 2002.								
⁷ Spokane County Air Pollution Control Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
⁸ Southwest Clean Air Agency, for all NSPS delegated, as in effect on July 1, 2000.								
⁹ Yakima Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
¹⁰ Subpart S of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Primary Aluminum Plants, pursuant to Washington Administrative Code 173-415-010.								
¹¹ Subpart BB of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Kraft and Sulfite Pulping Mills, pursuant to Washington State Administrative Code 173-405-012 and 173-410-012.								

(50) State of West Virginia, Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, West Virginia 25304.

(51) State of Wisconsin: Wisconsin Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707-7921.

(52) State of Wyoming, Department of Environmental Quality, Air Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, WY 82002.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(53) Territory of Guam: Guam Environmental Protection Agency, P.O. Box 22439 GMF, Barrigada, Guam 96921.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(54) Commonwealth of Puerto Rico: Commonwealth of Puerto Rico Environmental Quality Board, P.O. Box 11488, Santurce, PR 00910, Attention: Air Quality Area Director (see table under § 60.4(b)(FF)(1)).

(55) U.S. Virgin Islands: U.S. Virgin Islands Department of Conservation and Cultural Affairs, P.O. Box 578, Charlotte Amalie, St. Thomas, VI 00801.

(56) American Samoa: American Samoa Environmental Protection Agency, P.O. Box PPA, Pago Pago, American Samoa 96799.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(57) Commonwealth of the Northern Mariana Islands: CNMI Division of Environmental Quality, P.O. Box 501304, Saipan, MP 96950.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(c) The delegation status table for New Source Performance Standards for Region VIII can be found online at <http://www2.epa.gov/region8/air-program>.

(d) The following tables list the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region IX. The (X) symbol is used to indicate each standard that has been delegated. The following provisions of this subpart are not delegated: §§ 60.4(b), 60.8(b), 60.9, 60.11(b), 60.11(e), 60.13(a), 60.13(d)(2), 60.13(g), 60.13(i).

(1) *Arizona*. The following table identifies delegations for Arizona:

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	X	
F	Portland Cement Plants	X		X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011		X	X	
H	Sulfuric Acid Plant	X	X	X	X
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X		X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007			X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X		X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X		X	X
Q	Primary Zinc Smelters	X		X	X
R	Primary Lead Smelters	X		X	X
S	Primary Aluminum Reduction Plants	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
BBa	Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013		X	X	
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
SS	Industrial Surface Coating: Large Appliances	X	X	X	X
TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	X	
WW	Beverage Can Surface Coating Industry	X	X	X	X
XX	Bulk Gasoline Terminals	X	X	X	X
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X		X	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X		X	
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X	X	X
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	X	X
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X		X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X	
XXX	Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014		X	X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X	
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X	
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X	
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines	X	X	X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X	X	
KKKK	Stationary Combustion Turbines	X	X	X	
LLLL	New Sewage Sludge Incineration Units			X	
MMMM	Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	X			
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution		X	X	
OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for Which		X	X	

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
	Construction, Modification or Reconstruction Commenced After September 18, 2015				
QQQQ	Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces		X	X	
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units		X	X	

(2) *California*. The following tables identify delegations for each of the local air pollution control agencies of California.

(i) Delegations for Amador County Air Pollution Control District, Antelope Valley Air Quality Management District, Bay Area Air Quality Management District, and Butte County Air Quality Management District are shown in the following table:

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
A	General Provisions		X		
Ba	Adoption and Submittal of State Plans for Designated Facilities		X		
Cf	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills		X		
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X	X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units		X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	
E	Incinerators		X	X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996		X		
F	Portland Cement Plants		X	X	
G	Nitric Acid Plants		X	X	

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011		X		
H	Sulfuric Acid Plant		X	X	
I	Hot Mix Asphalt Facilities		X	X	
J	Petroleum Refineries		X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X	X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X	X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X	X	
L	Secondary Lead Smelters		X	X	
M	Secondary Brass and Bronze Production Plants		X	X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X	X	
O	Sewage Treatment Plants		X	X	
P	Primary Copper Smelters		X	X	
Q	Primary Zinc Smelters		X	X	
R	Primary Lead Smelters		X	X	
S	Primary Aluminum Reduction Plants		X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	X	

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	X	
Y	Coal Preparation and Processing Plants		X	X	
Z	Ferroalloy Production Facilities		X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X	X	
BB	Kraft Pulp Mills		X	X	
BBa	Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013		X		
CC	Glass Manufacturing Plants		X	X	
DD	Grain Elevators		X	X	
EE	Surface Coating of Metal Furniture		X	X	
FF	(Reserved)				
GG	Stationary Gas Turbines		X	X	
HH	Lime Manufacturing Plants		X	X	
KK	Lead-Acid Battery Manufacturing Plants		X	X	
LL	Metallic Mineral Processing Plants		X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations		X	X	
NN	Phosphate Rock Plants		X	X	
PP	Ammonium Sulfate Manufacture		X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X	X	
SS	Industrial Surface Coating: Large Appliances		X	X	
TT	Metal Coil Surface Coating		X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture		X	X	

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing		X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		
WW	Beverage Can Surface Coating Industry		X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries		X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities		X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners		X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions		X		
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X	X	
OOO	Nonmetallic Mineral Processing Plants		X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X		

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	
WWW	Municipal Solid Waste Landfills		X		
XXX	Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014		X		
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001		X		
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001		X		
DDDD	Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units		X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006		X		
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines		X		
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X		
KKKK	Stationary Combustion Turbines		X		
LLLL	New Sewage Sludge Incineration Units		X		
MMMM	Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units		X		
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution		X		

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
OOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015		X		
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units		X		
UUUa	Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units		X		

(ii) [Reserved]

(iii) Delegations for Glenn County Air Pollution Control District, Great Basin Unified Air Pollution Control District, Imperial County Air Pollution Control District, and Kern County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units		X		X
Dc	Small Industrial Steam Generating Units		X		X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X

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Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
H	Sulfuric Acid Plants		X		
I	Hot Mix Asphalt Facilities		X		X
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X		X
L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X		X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X		X
BB	Kraft pulp Mills		X		X
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture		X		X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X
HH	Lime Manufacturing Plants		X		X
KK	Lead-Acid Battery Manufacturing Plants		X		X
LL	Metallic Mineral Processing Plants		X		X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants		X		X
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X		X
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X		X
SS	Industrial Surface Coating: Large Appliances		X		X
TT	Metal Coil Surface Coating		X		X
UU	Asphalt Processing and Asphalt Roofing Manufacture		X		X

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Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry		X		X
WW	Beverage Can Surface Coating Industry		X		X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters		X		X
BBB	Rubber Tire Manufacturing Industry		X		X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X		X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X		X
GGG	Equipment Leaks of VOC in Petroleum Refineries		X		X
HHH	Synthetic Fiber Production Facilities		X		X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		X
JJJ	Petroleum Dry Cleaners		X		X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X		X
LLL	Onshore Natural Gas Processing: SO2 Emissions				X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X		X
OOO	Nonmetallic Mineral Processing Plants		X		X
PPP	Wool Fiberglass Insulation Manufacturing Plants		X		X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X		X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
SSS	Magnetic Tape Coating Facilities		X		X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X		X
VVV	Polymeric Coating of Supporting Substrates Facilities		X		X
WWW	Municipal Solid Waste Landfills				X

(iv) Delegations for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
A	General Provisions	X			X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X			X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X			X
Db	Industrial-Commercial-Institutional Steam Generating Units	X			
Dc	Small Industrial Steam Generating Units	X			X
E	Incinerators	X			X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X			X
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
F	Portland Cement Plants	X			X
G	Nitric Acid Plants	X			X
H	Sulfuric Acid Plants	X			X
I	Hot Mix Asphalt Facilities	X			X
J	Petroleum Refineries	X			X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X			X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X			X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X			X
L	Secondary Lead Smelters	X			X
M	Secondary Brass and Bronze Production Plants	X			X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X			X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X			X
O	Sewage Treatment Plants	X			X
P	Primary Copper Smelters	X			X
Q	Primary Zinc Smelters	X			X
R	Primary Lead Smelters	X			X
S	Primary Aluminum Reduction Plants	X			X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X			X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X			X

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X			X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X			X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X			X
Y	Coal Preparation Plants	X			X
Z	Ferroalloy Production Facilities	X			X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X			X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X			X
BB	Kraft Pulp Mills	X			X
CC	Glass Manufacturing Plants	X			X
DD	Grain Elevators	X			X
EE	Surface Coating of Metal Furniture	X			X
FF	(Reserved)				
GG	Stationary Gas Turbines	X			X
HH	Lime Manufacturing Plants	X			X
KK	Lead-Acid Battery Manufacturing Plants	X			X
LL	Metallic Mineral Processing Plants	X			X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X			X
NN	Phosphate Rock Plants	X			X
PP	Ammonium Sulfate Manufacture	X			X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X			X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X			X
SS	Industrial Surface Coating: Large Appliances	X			X
TT	Metal Coil Surface Coating	X			X

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
UU	Asphalt Processing and Asphalt Roofing Manufacture	X			X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X			X
WW	Beverage Can Surface Coating Industry	X			X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters	X			X
BBB	Rubber Tire Manufacturing Industry	X			X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X			X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X			X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X			X
HHH	Synthetic Fiber Production Facilities	X			X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X			X
JJJ	Petroleum Dry Cleaners	X			X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X			X
LLL	Onshore Natural Gas Processing: SO2 Emissions	X			X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X			X
OOO	Nonmetallic Mineral Processing Plants	X			X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X			X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X			X

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X			
SSS	Magnetic Tape Coating Facilities	X			X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				
UUU	Calciners and Dryers in Mineral Industries	X			X
VVV	Polymeric Coating of Supporting Substrates Facilities	X			X
WWW	Municipal Solid Waste Landfills	X			

(v) Delegations for Modoc Air Pollution Control District, Mojave Desert Air Quality Management District, Monterey Bay Unified Air Pollution Control District and North Coast Unified Air Quality Management District are shown in the following table:

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced		X		

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
	After June 20, 1996				
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	X
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
SS	Industrial Surface Coating: Large Appliances	X	X	X	X
TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		
WW	Beverage Can Surface Coating Industry	X	X	X	X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical	X	X	X	

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
	Manufacturing Industry (SOCMI) Distillation Operations				
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	X
WWW	Municipal Solid Waste Landfills		X	X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001		X		
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001		X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006		X		
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines		X	X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X	X	
KKKK	Stationary Combustion Turbines		X	X	
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(vi) Delegations for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District					
	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units				X
Dc	Small Industrial Steam Generating Units				X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994				X
Eb	Municipal Waste Combustors Constructed After September 20, 1994				X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				X
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X
H	Sulfuric Acid Plants		X		X
I	Hot Mix Asphalt Facilities		X		X
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction,				X

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
	or Modification Commenced After July 23, 1984				
L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983				X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983				X
BB	Kraft pulp Mills		X		X

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Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture				X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X
HH	Lime Manufacturing Plants		X		X
KK	Lead-Acid Battery Manufacturing Plants				X
LL	Metallic Mineral Processing Plants				X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants				X
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing				X
RR	Pressure Sensitive Tape and Label Surface Coating Operations				X
SS	Industrial Surface Coating: Large Appliances				X
TT	Metal Coil Surface Coating				X
UU	Asphalt Processing and Asphalt Roofing Manufacture				X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry				X
WW	Beverage Can Surface Coating Industry				X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters				X
BBB	Rubber Tire Manufacturing Industry				X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry				X

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Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing				X
GGG	Equipment Leaks of VOC in Petroleum Refineries				X
HHH	Synthetic Fiber Production Facilities				X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes				X
JJJ	Petroleum Dry Cleaners				X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants				X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions				X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations				X
OOO	Nonmetallic Mineral Processing Plants				X
PPP	Wool Fiberglass Insulation Manufacturing Plants				X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems				X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X
SSS	Magnetic Tape Coating Facilities				X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				X
UUU	Calciners and Dryers in Mineral Industries				X
VVV	Polymeric Coating of Supporting Substrates Facilities				X
WWW	Municipal Solid Waste Landfills				X

(vii) Delegations for San Diego County Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District, San Luis Obispo County Air Pollution Control District, and Santa Barbara County Air Pollution Control District are shown in the following table:

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X		X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X			X
F	Portland Cement Plants	X	X	X	
G	Nitric Acid Plants	X	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007				X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	
Q	Primary Zinc Smelters	X	X	X	
R	Primary Lead Smelters	X	X	X	
S	Primary Aluminum Reduction Plants	X	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	
Y	Coal Preparation and Processing Plants	X	X	X	
Z	Ferroalloy Production Facilities	X	X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	
BB	Kraft Pulp Mills	X	X	X	
CC	Glass Manufacturing Plants	X	X	X	X

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	
LL	Metallic Mineral Processing Plants	X	X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	
NN	Phosphate Rock Plants	X	X	X	
PP	Ammonium Sulfate Manufacture	X	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006				X
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X		

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006				X
HHH	Synthetic Fiber Production Facilities	X	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X		
JJJ	Petroleum Dry Cleaners	X	X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X		
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	
UUU	Calciners and Dryers in Mineral Industries	X	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6,	X			X

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
	2001				
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X			X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X			X
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines	X			X
JJJJ	Stationary Spark Ignition Internal Combustion Engines	X			X
KKKK	Stationary Combustion Turbines	X			X
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				
QQQQ	Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces	X			
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	X			

(viii) Delegations for Shasta County Air Quality Management District, Siskiyou County Air Pollution Control District, South Coast Air Quality Management District, and Tehama County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
A	General Provisions	X	X	X	
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X		X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978			X	
Db	Industrial-Commercial-Institutional Steam Generating Units			X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units			X	
E	Incinerators	X		X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994			X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994			X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996			X	
F	Portland Cement Plants	X		X	
G	Nitric Acid Plants	X		X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X		X	
I	Hot Mix Asphalt Facilities	X		X	
J	Petroleum Refineries	X		X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007			X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X		X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984			X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984			X	
L	Secondary Lead Smelters	X		X	
M	Secondary Brass and Bronze Production Plants	X		X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X		X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983			X	
O	Sewage Treatment Plants	X		X	
P	Primary Copper Smelters	X		X	
Q	Primary Zinc Smelters	X		X	
R	Primary Lead Smelters	X		X	
S	Primary Aluminum Reduction Plants	X		X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X		X	
Y	Coal Preparation and Processing Plants	X		X	
Z	Ferroalloy Production Facilities	X		X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X		X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983			X	
BB	Kraft Pulp Mills	X		X	
CC	Glass Manufacturing Plants			X	
DD	Grain Elevators	X		X	
EE	Surface Coating of Metal Furniture			X	
FF	(Reserved)				
GG	Stationary Gas Turbines			X	
HH	Lime Manufacturing Plants	X		X	
KK	Lead-Acid Battery Manufacturing Plants			X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
LL	Metallic Mineral Processing Plants			X	
MM	Automobile and Light Duty Trucks Surface Coating Operations			X	
NN	Phosphate Rock Plants			X	
PP	Ammonium Sulfate Manufacture			X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing			X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations			X	
SS	Industrial Surface Coating: Large Appliances			X	
TT	Metal Coil Surface Coating			X	
UU	Asphalt Processing and Asphalt Roofing Manufacture			X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing			X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006			X	
WW	Beverage Can Surface Coating Industry			X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry			X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing			X	
GGG	Equipment Leaks of VOC in Petroleum Refineries			X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			X	
HHH	Synthetic Fiber Production Facilities			X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes			X	
JJJ	Petroleum Dry Cleaners			X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants			X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions			X	
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations			X	
OOO	Nonmetallic Mineral Processing Plants			X	
PPP	Wool Fiberglass Insulation Manufacturing Plants			X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes			X	
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries			X	
VVV	Polymeric Coating of Supporting Substrates Facilities			X	
WWW	Municipal Solid Waste Landfills			X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X	
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001			X	
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006			X	
GGGG	(Reserved)				

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines			X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines			X	
KKKK	Stationary Combustion Turbines			X	
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(ix) Delegations for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District are shown in the following table:

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
A	General Provisions		X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X	
Db	Industrial-Commercial-Institutional Steam Generating Units		X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	
E	Incinerators		X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994			
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996			
F	Portland Cement Plants		X	
G	Nitric Acid Plants		X	

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
H	Sulfuric Acid Plant		X	
I	Hot Mix Asphalt Facilities		X	X
J	Petroleum Refineries		X	X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X	
L	Secondary Lead Smelters		X	
M	Secondary Brass and Bronze Production Plants		X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X	
O	Sewage Treatment Plants		X	
P	Primary Copper Smelters		X	
Q	Primary Zinc Smelters		X	
R	Primary Lead Smelters		X	
S	Primary Aluminum Reduction Plants		X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	
Y	Coal Preparation and Processing Plants		X	

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
Z	Ferroalloy Production Facilities		X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X	
BB	Kraft Pulp Mills		X	
CC	Glass Manufacturing Plants		X	
DD	Grain Elevators		X	
EE	Surface Coating of Metal Furniture		X	
FF	(Reserved)			
GG	Stationary Gas Turbines		X	
HH	Lime Manufacturing Plants		X	
KK	Lead-Acid Battery Manufacturing Plants		X	
LL	Metallic Mineral Processing Plants		X	
MM	Automobile and Light Duty Trucks Surface Coating Operations		X	
NN	Phosphate Rock Plants		X	
PP	Ammonium Sulfate Manufacture		X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X	
SS	Industrial Surface Coating: Large Appliances		X	
TT	Metal Coil Surface Coating		X	
UU	Asphalt Processing and Asphalt Roofing Manufacture		X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing		X	
WW	Beverage Can Surface Coating Industry		X	
XX	Bulk Gasoline Terminals			

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
AAA	New Residential Wood Heaters		X	
BBB	Rubber Tire Manufacturing Industry		X	
CCC	(Reserved)			
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X	
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing		X	
GGG	Equipment Leaks of VOC in Petroleum Refineries		X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			
HHH	Synthetic Fiber Production Facilities		X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X	
JJJ	Petroleum Dry Cleaners		X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions		X	
MMM	(Reserved)			
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X	
OOO	Nonmetallic Mineral Processing Plants		X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X	
SSS	Magnetic Tape Coating Facilities		X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	
UUU	Calciners and Dryers in Mineral Industries		X	

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
VVV	Polymeric Coating of Supporting Substrates Facilities		X	
WWW	Municipal Solid Waste Landfills	X	X	

(3) *Hawaii*. The following table identifies delegations for Hawaii:

Delegation Status for New Source Performance Standards for Hawaii:

Delegation Status for New Source Performance Standards for Hawaii		
	Subpart	Hawaii
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X
Dc	Small Industrial Steam Generating Units	X
E	Incinerators	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X
Eb	Municipal Waste Combustors Constructed After September 20, 1994	X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X
F	Portland Cement Plants	X
G	Nitric Acid Plants	
H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X

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Delegation Status for New Source Performance Standards for Hawaii		
	Subpart	Hawaii
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X
L	Secondary Lead Smelters	
M	Secondary Brass and Bronze Production Plants	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	
O	Sewage Treatment Plants	X
P	Primary Copper Smelters	
Q	Primary Zinc Smelters	
R	Primary Lead Smelters	
S	Primary Aluminum Reduction Plants	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	
Y	Coal Preparation Plants	X
Z	Ferroalloy Production Facilities	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X
BB	Kraft pulp Mills	
CC	Glass Manufacturing Plants	
DD	Grain Elevators	
EE	Surface Coating of Metal Furniture	
FF	(Reserved)	
GG	Stationary Gas Turbines	X
HH	Lime Manufacturing Plants	

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Delegation Status for New Source Performance Standards for Hawaii

	Subpart	Hawaii
KK	Lead-Acid Battery Manufacturing Plants	
LL	Metallic Mineral Processing Plants	
MM	Automobile and Light Duty Trucks Surface Coating Operations	
NN	Phosphate Rock Plants	
PP	Ammonium Sulfate Manufacture	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	
SS	Industrial Surface Coating: Large Appliances	
TT	Metal Coil Surface Coating	
UU	Asphalt Processing and Asphalt Roofing Manufacture	
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
WW	Beverage Can Surface Coating Industry	X
XX	Bulk Gasoline Terminals	X
AAA	New Residential Wool Heaters	
BBB	Rubber Tire Manufacturing Industry	
CCC	(Reserved)	
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	
EEE	(Reserved)	
FFF	Flexible Vinyl and Urethane Coating and Printing	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
HHH	Synthetic Fiber Production Facilities	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	
JJJ	Petroleum Dry Cleaners	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	

Delegation Status for New Source Performance Standards for Hawaii		
	Subpart	Hawaii
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	
MMM	(Reserved)	
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X
OOO	Nonmetallic Mineral Processing Plants	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	
QQQ	VOC Emissions From Petroleum Refinery Wastewater	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	
SSS	Magnetic Tape Coating Facilities	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	
UUU	Calciners and Dryers in Mineral Industries	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X
WWW	Municipal Solid Waste Landfills	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	
GGGG	(Reserved)	
IIII	Stationary Compression Ignition Internal Combustion Engines	
JJJJ	Stationary Spark Ignition Internal Combustion Engines	
KKKK	Stationary Combustion Turbines	

(4) *Nevada*. The following table identifies delegations for Nevada:

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada				
	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
A	General Provisions	X	X	X

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
Cf	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills	X		
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	
E	Incinerators	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	
F	Portland Cement Plants	X	X	X
G	Nitric Acid Plants	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011	X		
H	Sulfuric Acid Plant	X	X	
I	Hot Mix Asphalt Facilities	X	X	X
J	Petroleum Refineries	X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	
L	Secondary Lead Smelters	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	
O	Sewage Treatment Plants	X	X	X
P	Primary Copper Smelters	X	X	X
Q	Primary Zinc Smelters	X	X	X
R	Primary Lead Smelters	X	X	X
S	Primary Aluminum Reduction Plants	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	
Y	Coal Preparation and Processing Plants	X	X	X
Z	Ferroalloy Production Facilities	X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	
BB	Kraft Pulp Mills		X	
CC	Glass Manufacturing Plants	X	X	
DD	Grain Elevators	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X
FF	(Reserved)			
GG	Stationary Gas Turbines	X	X	X
HH	Lime Manufacturing Plants	X	X	X

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
KK	Lead-Acid Battery Manufacturing Plants	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X
NN	Phosphate Rock Plants	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X
TT	Metal Coil Surface Coating	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	
WW	Beverage Can Surface Coating Industry	X	X	
XX	Bulk Gasoline Terminals	X	X	
AAA	New Residential Wood Heaters		X	
BBB	Rubber Tire Manufacturing Industry	X	X	
CCC	(Reserved)			
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X	X	
HHH	Synthetic Fiber Production Facilities	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X	

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
JJJ	Petroleum Dry Cleaners	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	
MMM	(Reserved)			
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	
OOO	Nonmetallic Mineral Processing Plants	X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X
XXX	Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014	X		
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X
GGGG	(Reserved)			
HHHH	(Reserved)			
IIII	Stationary Compression Ignition Internal Combustion Engines	X	X	X

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
JJJJ	Stationary Spark Ignition Internal Combustion Engines	X	X	X
KKKK	Stationary Combustion Turbines	X	X	X
LLLL	New Sewage Sludge Incineration Units		X	
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution	X		

(5) *Guam*. The following table identifies delegations as of June 15, 2001:

Delegation Status for New Source Performance Standards for Guam

	Subpart	Guam
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	
Db	Industrial-Commercial-Institutional Steam Generating Units	
Dc	Small Industrial Steam Generating Units	
E	Incinerators	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	
Eb	Municipal Waste Combustors Constructed After September 20, 1994	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	
F	Portland Cement Plants	X
G	Nitric Acid Plants	
H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X

(e) The following lists the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region 6.

(1) *New Mexico*. The New Mexico Environment Department has been delegated all part 60 standards promulgated by the EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters;

and subpart QQQQ—Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces, as amended in the Federal Register through January 15, 2017.

(2) *Louisiana*. The Louisiana Department of Environmental Quality has been delegated the following part 60 standards promulgated by EPA, as amended in the Federal Register through July 1, 2021. The (X) symbol is used to indicate each subpart that has been delegated.

Delegation Status for Part 60 Standards—State of Louisiana [Excluding Indian Country]		
Subpart	Source category	LDEQ
A	General Provisions	X
Cb	Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994	X
Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills	X
Cd	Emissions Guidelines and Compliance Times for Sulfuric Acid Production Units	X
Ce	Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators	X
Cf	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills	X
D	Fossil Fueled Steam Generators	X
Da	Electric Utility Steam Generating Units	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X
E	Incinerators	X
Ea	Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989, and On or Before September 20, 1994	X
Eb	Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996	X
Ec	Hospital/Medical/Infectious Waste Incinerators	X
F	Portland Cement Plants	X
G	Nitric Acid Plants	X
Ga	Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011	X
H	Sulfuric Acid Plants	X
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X

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Delegation Status for Part 60 Standards—State of Louisiana [Excluding Indian Country]		
Subpart	Source category	LDEQ
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X
Kb	VOC Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, and On or Before October 4, 2023	X
Kc	VOC Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, October 4, 2023	No
L	Secondary Lead Smelters for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and On or Before December 1, 2022	X
La	Secondary Lead Smelters for Which Construction, Reconstruction, or Modification Commenced After December 1, 2022	No
M	Secondary Brass and Bronze Production Plants	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction Commenced After June 11, 1973	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X
O	Sewage Treatment Plants	X
P	Primary Copper Smelters	X
Q	Primary Zinc Smelters	X
R	Primary Lead Smelters	X
S	Primary Aluminum Reduction Plants	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Plants	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X
Y	Coal Preparation and Processing Plants	X

Delegation Status for Part 60 Standards—State of Louisiana**[Excluding Indian Country]**

Subpart	Source category	LDEQ
Z	Ferroalloy Production Facilities	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983	X
AAa	Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983, and On or Before May 16, 2022	X
AAb	Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels Constructed After May 16, 2022	No
BB	Kraft Pulp Mills	X
BBa	Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013	X
CC	Glass Manufacturing Plants	X
DD	Grain Elevators	X
EE	Surface Coating of Metal Furniture	X
GG	Stationary Gas Turbines	X
HH	Lime Manufacturing Plants	X
KK	Lead-Acid Battery Manufacturing Plants for Which Construction, Reconstruction, or Modification Commenced After January 14, 1980, and On or Before February 23, 2022	X
KKa	Lead-Acid Battery Manufacturing Plants for Which Construction, Reconstruction, or Modification Commenced After February 23, 2022	No
LL	Metallic Mineral Processing Plants	X
MM	Automobile & Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After October 5, 1979, and On or Before May 18, 2022	X
MMa	Automobile & Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After May 18, 2022	No
NN	Phosphate Manufacturing Plants	X
PP	Ammonium Sulfate Manufacture	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X
SS	Industrial Surface Coating: Large Appliances	X
TT	Metal Coil Surface Coating	X

Delegation Status for Part 60 Standards—State of Louisiana**[Excluding Indian Country]**

Subpart	Source category	LDEQ
UU	Asphalt Processing and Asphalt Roofing Manufacture	X
VV	Equipment Leaks of VOC in the SOCM I Industry for Which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006	X
VVa	Equipment Leaks of VOC in the SOCM I Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, and on or Before April 25, 2023	X
VVb	Equipment Leaks of VOC in the SOCM I Industry for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023	No
WW	Beverage Can Surface Coating Industry	X
XX	Bulk Gasoline Terminals That Commenced Construction, Modification, or Reconstruction After December 17, 1980, and On or Before June 10, 2022	X
XXa	Bulk Gasoline Terminals That Commenced Construction, Modification, or Reconstruction After June 10, 2022	No
AAA	New Residential Wood Heaters	No
BBB	Rubber Tire Manufacturing Industry	X
CCC	[Reserved]	
DDD	Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry	X
EEE	[Reserved]	
FFF	Flexible Vinyl and Urethane Coating and Printing	X
GGG	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and On or Before November 7, 2006	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X
HHH	Synthetic Fiber Production	X
III	VOC Emissions from the SOCM I Air Oxidation Unit Processes	X
IIIa	VOC Emissions from the SOCM I Air Oxidation Unit Processes for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023	No
JJJ	Petroleum Dry Cleaners	X
KKK	VOC Equipment Leaks From Onshore Natural Gas Processing Plants	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X
MMM	[Reserved]	

Delegation Status for Part 60 Standards—State of Louisiana**[Excluding Indian Country]**

Subpart	Source category	LDEQ
NNN	VOC Emissions from SOCM I Distillation Operations	X
NNNa	VOC Emissions from SOCM I Distillation Operations for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023	No
OOO	Nonmetallic Mineral Processing Plants	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X
RRR	VOC Emissions from SOCM I Reactor Processes	X
RRRa	VOC Emissions from SOCM I Reactor Processes for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023	No
SSS	Magnetic Tape Coating Operations	X
TTT	Industrial Surface Coating: Plastic Parts for Business Machines	X
TTTa	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines for Which Construction, Reconstruction, or Modification Commenced After June 21, 2022	No
UUU	Calciners and Dryers in Mineral Industries	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X
WWW	Municipal Solid Waste Landfills	X
XXX	Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014	X
YYY-ZZZ	<i>[Reserved]</i>	
AAAA	Small Municipal Waste Combustion Units (Construction is Commenced After 8/30/99 or Modification/Reconstruction is Commenced After 6/06/2001)	X
BBBB	Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999	X
CCCC	Commercial & Industrial Solid Waste Incineration Units (Construction is Commenced After 11/30/1999 or Modification/Reconstruction is Commenced on or After 6/01/2001)	X
DDDD	Emission Guidelines & Compliance Times for Commercial & Industrial Solid Waste Incineration Units (Commenced Construction On or Before 11/30/1999)	X
EEEE	Other Solid Waste Incineration Units (Constructed after 12/09/2004 or Modification/Reconstruction is commenced on or after 06/16/2004)	X
FFFF	Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units that Commenced Construction On or Before December 9, 2004	X

Delegation Status for Part 60 Standards—State of Louisiana [Excluding Indian Country]		
Subpart	Source category	LDEQ
GGG- HHH	[Reserved]	
IIII	Stationary Compression Ignition Internal Combustion Engines	X
JJJJ	Stationary Spark Ignition Internal Combustion Engines	X
KKKK	Stationary Combustion Turbines (Construction Commenced After 02/18/2005)	X
LLLL	New Sewage Sludge Incineration Units	X
MMMM	Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	X
NNNN	[Reserved]	
OOOO	Crude Oil and Natural Gas Production, Transmission and Distribution	X
OOOOa	Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015 and On or Before December 6, 2022	X
OOOOb	Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After December 6, 2022	No
OOOOc	Emissions Guidelines for Greenhouse Gas Emissions from Existing Crude Oil and Natural Gas Facilities	No
PPPP	[Reserved]	
QQQQ	New Residential Hydronic Heaters and Forced-Air Furnaces	X
TTTT	Greenhouse Gas Emissions for Electric Generating Units	X
TTTTa	Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units	No
UUUUa	[Reserved]	
UUUUb	Greenhouse Gas Emissions for Electric Utility Generating Units	No

(3) *Albuquerque-Bernalillo County Air Quality Control Board*. The Albuquerque-Bernalillo County Air Quality Control Board has been delegated all part 60 standards promulgated by the EPA, except subpart AAA of this part and subpart QQQQ of this part as amended through January 23, 2017.

Editorial Note: For Federal Register citations affecting § 60.4, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 60.5 Determination of construction or modification.

(a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.

(b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

§ 60.6 Review of plans.

(a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.

(b)

(1) A separate request shall be submitted for each construction or modification project.

(2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.

(c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall

(1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or

(2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

§ 60.7 Notification and record keeping.

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:

(1) A notification of the date construction (or reconstruction as defined under § 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) [Reserved]

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in § 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with § 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

(6) A notification of the anticipated date for conducting the opacity observations required by § 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible

emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by § 60.8 in lieu of Method 9 observation data as allowed by § 60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in § 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in § 60.7(c) shall both be submitted.

Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO₂/NO_x/TRS/H₂S/CO/Opacity)

Reporting period dates: From _____ to _____

Company:

Permit Issued: [month day, year]
Permit Expires: [month day, year]

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Emission Limitation

Address:

Monitor Manufacturer and Model No.

Date of Latest CMS Certification or Audit

Process Unit(s) Description:

Total source operating time in reporting period¹

Emission data summary ¹		CMS performance summary ¹	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	% ²	3. [Total CMS Downtime] × (100) [Total source operating time]	% ²

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in § 60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

(e)

(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

(1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated

authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

§ 60.8 Performance tests.

(a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator

(1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology,

(2) approves the use of an equivalent method,

(3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance,

(4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or

(5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes

(i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and

(ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

(1) Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(2) Contents of report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in paragraphs (f)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method requires you record or report, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60, Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60, Methods 18 and 19 of appendix A-6 of part 60, Methods 20, 22, and 25A of appendix A-7 of part 60, Methods 30A and 30B of appendix A-8 of part 60, and Methods 303, 318, 320, and 321 of appendix A of part 63 of this chapter. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The

compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (i) Preparing the sample;
- (ii) Confirming the true concentration of the sample;
- (iii) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.
- (iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility

tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;

(ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(i) Checking audit samples to confirm their true value as reported by the AASP;

(ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;

(iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards__gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(h) Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

§ 60.9 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§ 60.5 and 60.6 is governed by §§ 2.201 through 2.213 of this chapter and not by § 2.301 of this chapter.)

§ 60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

§ 60.11 Compliance with standards and maintenance requirements.

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by § 60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)
 - (1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in § 60.8 unless one of the following conditions apply. If no performance test under § 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under § 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in § 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the

conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under § 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in § 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by § 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and § 60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under § 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under § 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under § 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under § 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under § 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in § 60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by § 60.8, the opacity observation results and observer certification required by § 60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by § 60.8. If the Administrator finds

that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with § 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.

(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

§ 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

§ 60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under § 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under § 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under § 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under § 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under § 60.8 and as described in § 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under § 60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)

(1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part must check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent.

When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)

(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in § 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average;
or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of § 60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g., hours with < 30 minutes of unit operation under § 60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

- (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.
- (2) Alternative monitoring requirements when the affected facility is infrequently operated.
- (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
- (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
- (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
- (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
- (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
- (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.
- (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:

- (1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in § 60.8 of this subpart or other tests performed following the criteria in § 60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the

CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §§ 60.45(g) (2) and (3), 60.73(e), and 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

Editorial Note: For Federal Register citations affecting § 60.13, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 60.14 Modification.

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) [Reserved]

(e) The following shall not, by themselves, be considered modifications under this part:

- (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and § 60.15.
- (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
- (3) An increase in the hours of operation.
- (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by § 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
- (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
- (6) The relocation or change in ownership of an existing facility.

(f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.

(g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.

(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.

(j)

(1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

(2) This exemption shall not apply to any new unit that:

- (i) Is designated as a replacement for an existing unit;
- (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
- (iii) Is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

§ 60.15 Reconstruction.

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(1) Name and address of the owner or operator.

(2) The location of the existing facility.

(3) A brief description of the existing facility and the components which are to be replaced.

(4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.

(5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

(6) The estimated life of the existing facility after the replacements.

(7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

(2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;

(3) The extent to which the components being replaced cause or contribute to the emissions from the facility;
and

(4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

§ 60.16 Priority list.

Prioritized Major Source Categories	
Priority Number ¹	Source Category
1.	Synthetic Organic Chemical Manufacturing Industry (SOCMI) and Volatile Organic Liquid Storage Vessels and Handling Equipment
	(a) SOCMI unit processes
	(b) Volatile organic liquid (VOL) storage vessels and handling equipment
	(c) SOCMI fugitive sources
	(d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper
5.	Dry Cleaning
	(a) Perchloroethylene
	(b) Petroleum solvent
6.	Graphic Arts
7.	Polymers and Resins: Acrylic Resins
8.	Mineral Wool (Deleted)
9.	Stationary Internal Combustion Engines
10.	Industrial Surface Coating: Fabric
11.	Industrial-Commercial-Institutional Steam Generating Units.
12.	Incineration: Non-Municipal (Deleted)
13.	Non-Metallic Mineral Processing
14.	Metallic Mineral Processing
15.	Secondary Copper (Deleted)

Prioritized Major Source Categories	
Priority Number ¹	Source Category
16.	Phosphate Rock Preparation
17.	Foundries: Steel and Gray Iron
18.	Polymers and Resins: Polyethylene
19.	Charcoal Production
20.	Synthetic Rubber
	(a) Tire manufacture
	(b) SBR production
21.	Vegetable Oil
22.	Industrial Surface Coating: Metal Coil
23.	Petroleum Transportation and Marketing
24.	By-Product Coke Ovens
25.	Synthetic Fibers
26.	Plywood Manufacture
27.	Industrial Surface Coating: Automobiles
28.	Industrial Surface Coating: Large Appliances
29.	Crude Oil and Natural Gas Production
30.	Secondary Aluminum
31.	Potash (Deleted)
32.	Lightweight Aggregate Industry: Clay, Shale, and Slate ²
33.	Glass
34.	Gypsum
35.	Sodium Carbonate
36.	Secondary Zinc (Deleted)
37.	Polymers and Resins: Phenolic
38.	Polymers and Resins: Urea-Melamine
39.	Ammonia (Deleted)
40.	Polymers and Resins: Polystyrene

Prioritized Major Source Categories	
Priority Number ¹	Source Category
41.	Polymers and Resins: ABS-SAN Resins
42.	Fiberglass
43.	Polymers and Resins: Polypropylene
44.	Textile Processing
45.	Asphalt Processing and Asphalt Roofing Manufacture
46.	Brick and Related Clay Products
47.	Ceramic Clay Manufacturing (Deleted)
48.	Ammonium Nitrate Fertilizer
49.	Castable Refractories (Deleted)
50.	Borax and Boric Acid (Deleted)
51.	Polymers and Resins: Polyester Resins
52.	Ammonium Sulfate
53.	Starch
54.	Perlite
55.	Phosphoric Acid: Thermal Process (Deleted)
56.	Uranium Refining
57.	Animal Feed Defluorination (Deleted)
58.	Urea (for fertilizer and polymers)
59.	Detergent (Deleted)
<i>Other Source Categories</i>	
Lead acid battery manufacture ³	
Organic solvent cleaning ³	
Industrial surface coating: metal furniture ³	
Stationary gas turbines ⁴	
Municipal solid waste landfills ⁴	
¹ Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.	
² Formerly titled "Sintering: Clay and Fly Ash".	

Prioritized Major Source Categories

Priority Number ¹	Source Category
³ Minor source category, but included on list since an NSPS is being developed for that source category.	
⁴ Not prioritized, since an NSPS for this major source category has already been promulgated.	

§ 60.17 Incorporations by reference.

(a)

(1) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the U.S. Environmental Protection Agency (EPA) must publish a document in the Federal Register and the material must be available to the public. All approved incorporation by reference (IBR) material is available for inspection at the EPA and at the National Archives and Records Administration (NARA). Contact the EPA at: EPA Docket Center, Public Reading Room, EPA WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC; phone: (202) 566-1744. For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

(2) The IBR material may be obtained from the sources in the following paragraphs of this section or from one or more private resellers listed in this paragraph (a)(2). For material that is no longer commercially available, contact: the EPA (see paragraph (a)(1) of this section).

(i) Accuris Standards Store, 321 Inverness Drive, South Englewood, CO 80112; phone: (800) 332-6077; website: <https://store.accuristech.com>.

(ii) American National Standards Institute (ANSI), see paragraph (d) of this section.

(iii) GlobalSpec, 257 Fuller Road, Suite NFE 1100, Albany, NY 12203-3621; phone: (800) 261-2052; website: <https://standards.globalspec.com>.

(iv) Nimonik Document Center, 401 Roland Way, Suite 224, Oakland, CA 94624; phone (650) 591-7600; email: info@document-center.com; website: www.document-center.com.

(v) Techstreet, phone: (855) 999-9870; email: store@techstreet.com; website: www.techstreet.com.

(b) American Gas Association, available through ILI Infodisk, 610 Winters Avenue, Paramus, New Jersey 07652:

(1) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (1990), IBR approved for § 60.107a(d).

(2) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 2: Specification and Installation Requirements (2000), IBR approved for § 60.107a(d).

(3) American Gas Association Report No. 11: Measurement of Natural Gas by Coriolis Meter (2003), IBR approved for § 60.107a(d).

(4) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Revised February 2006), IBR approved for § 60.107a(d).

(c) American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683.

(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR approved for §§ 60.35e and 60.55c.

(2) [Reserved]

(d) American National Standards Institute (ANSI), 25 West 43rd Street, Fourth Floor, New York, NY 10036-7417; phone: (212) 642-4980; email: info@ansi.org; website: www.ansi.org.

(1) ANSI No. C12.20-2010 American National Standard for Electricity Meters—0.2 and 0.5 Accuracy Classes (Approved August 31, 2010); IBR approved for §§ 60.5535(d); 60.5535a(d); 60.5860b(a).

(2) [Reserved]

(e) American Petroleum Institute (API), 200 Massachusetts Ave. NW, Suite 1100, Washington, DC 20001; phone: (202) 682-8000; website: www.api.org.

(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved for §§ 60.111(i), 60.111a(f), and 60.116b(e).

(2) API Manual of Petroleum Measurement Standards, Chapter 14—Natural Gas Fluids Measurement, Section 1—Collecting and Handling of Natural Gas Samples for Custody Transfer, 7th Edition, May 2016, IBR approved for § 60.4415(a).

(3) API Manual of Petroleum Measurement Standards, Chapter 22—Testing Protocol, Section 2—Differential Pressure Flow Measurement Devices, First Edition, August 2005, IBR approved for § 60.107a(d).

(f) American Public Health Association, 1015 18th Street NW., Washington, DC 20036.

(1) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” Incorporated by reference for appendix A-8 to part 60, Method 29, §§ 9.2.3, 10.3, and 11.1.3.

(2) 2540 G. Total, Fixed, and Volatile Solids in Solid and Semisolid Samples, in Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, IBR approved for § 60.154(b).

(g) American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990; phone: (800) 843-2763; email: CustomerCare@asme.org; website: www.asme.org.

(1) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§ 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).

(2) ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, IBR approved for § 60.107a(d).

(3) ASME/ANSI MFC-4M-1986 (Reaffirmed 2008), Measurement of Gas Flow by Turbine Meters, IBR approved for § 60.107a(d).

(4) ASME/ANSI MFC-5M-1985 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, IBR approved for § 60.107a(d).

(5) ASME MFC-6M-1998 (Reaffirmed 2005), Measurement of Fluid Flow in Pipes Using Vortex Flowmeters, IBR approved for § 60.107a(d).

(6) ASME/ANSI MFC-7M-1987 (Reaffirmed 2006), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, IBR approved for § 60.107a(d).

(7) ASME/ANSI MFC-9M-1988 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits by Weighing Method, IBR approved for § 60.107a(d).

(8) ASME MFC-11M-2006, Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters, IBR approved for § 60.107a(d).

- (9) ASME MFC-14M-2003, Measurement of Fluid Flow Using Small Bore Precision Orifice Meters, IBR approved for § 60.107a(d).
- (10) ASME MFC-16-2007, Measurement of Liquid Flow in Closed Conduits with Electromagnetic Flowmeters, IBR approved for § 60.107a(d).
- (11) ASME MFC-18M-2001, Measurement of Fluid Flow Using Variable Area Meters, IBR approved for § 60.107a(d).
- (12) ASME MFC-22-2007, Measurement of Liquid by Turbine Flowmeters, IBR approved for § 60.107a(d).
- (13) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§ 60.46b, 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).
- (14) ASME/ANSI PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], Issued August 31, 1981; IBR approved for §§ 60.56c(b); 60.63(f); 60.106(e); 60.104a(d), (h), (i), and (j); 60.105a(b), (d), (f), and (g); 60.106a(a); 60.107a(a), (c), and (d); 60.275(e); 60.275a(e); 60.275b(e); tables 1 and 3 to subpart EEEE; tables 2 and 4 to subpart FFFF; table 2 to subpart JJJJ; §§ 60.285a(f); 60.396(a); 60.614a(b); 60.664a(b); 60.704(b); 60.704a(b); 60.2145(s) and (t); 60.2710(s) and (t); 60.2730(q); 60.4415(a); 60.4900(b); 60.5220(b); tables 1 and 2 to subpart LLLL; tables 2 and 3 to subpart MMMM; §§ 60.5406(c); 60.5406a(c); 60.5406b(c); 60.5407a(g); 60.5407b(g); 60.5413(b); 60.5413a(b) and (d); 60.5413b(d) and (d); 60.5413c(b) and (d).
- (15) ASME PTC 22-2014, Gas Turbines: Performance Test Codes, (Issued December 31, 2014); IBR approved for §§ 60.5580; 60.5580a.
- (16) ASME PTC 46-1996, Performance Test Code on Overall Plant Performance, (Issued October 15, 1997); IBR approved for §§ 60.5580; 60.5580a.
- (17) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§ 60.54b(a) and (b), 60.56a, 60.1185(a) and (c), and 60.1675(a) and (c).
- (h) ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959; phone: (800) 262-1373; website: www.astm.org.
- (1) ASTM A99-76, Standard Specification for Ferromanganese, IBR approved for § 60.261.
- (2) ASTM A99-82 (Reapproved 1987), Standard Specification for Ferromanganese, IBR approved for § 60.261.
- (3) ASTM A100-69, Standard Specification for Ferrosilicon, IBR approved for § 60.261.
- (4) ASTM A100-74, Standard Specification for Ferrosilicon, IBR approved for § 60.261.
- (5) ASTM A100-93, Standard Specification for Ferrosilicon, IBR approved for § 60.261.
- (6) ASTM A101-73, Standard Specification for Ferrochromium, IBR approved for § 60.261.
- (7) ASTM A101-93, Standard Specification for Ferrochromium, IBR approved for § 60.261.
- (8) ASTM A482-76, Standard Specification for Ferrochromesilicon, IBR approved for § 60.261.
- (9) ASTM A482-93, Standard Specification for Ferrochromesilicon, IBR approved for § 60.261.
- (10) ASTM A483-64, Standard Specification for Silicomanganese, IBR approved for § 60.261.
- (11) ASTM A483-74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for § 60.261.
- (12) ASTM A495-76, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for § 60.261.

- (13) ASTM A495-94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for § 60.261.
- (14) ASTM D86-78, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (15) ASTM D86-82, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (16) ASTM D86-90, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (17) ASTM D86-93, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (18) ASTM D86-95, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (19) ASTM D86-96, Distillation of Petroleum Products, approved April 10, 1996; IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d); 60.633(h); 60.5401(f); 60.5401a(f); 60.5402b(d); 60.5402c(d).
- (20) ASTM D129-64, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (21) ASTM D129-78, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (22) ASTM D129-95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (23) ASTM D129-00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 60.335(b).
- (24) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 60.4415(a).
- (25) ASTM D240-76, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§ 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (26) ASTM D240-92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§ 60.46(c), 60.296(b), and appendix A-7: Method 19, Section 12.5.2.2.3.
- (27) ASTM D240-02 (Reapproved 2007), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, (Approved May 1, 2007), IBR approved for § 60.107a(d).
- (28) ASTM D240-19, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved November 1, 2019; IBR approved for § 60.485b(g).
- (29) ASTM D270-65, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (30) ASTM D270-75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (31) ASTM D323-82, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§ 60.111(l), 60.111a(g), 60.111b, and 60.116b(f).

- (32) ASTM D323-94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§ 60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (33) ASTM D388-77, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (34) ASTM D388-90, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (35) ASTM D388-91, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (36) ASTM D388-95, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (37) ASTM D388-98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (38) ASTM D388-99 (Reapproved 2004)^{e1}(ASTM D388-99R04), Standard Classification of Coals by Rank, (Approved June 1, 2004); IBR approved for §§ 60.41; 60.45(f); 60.41Da; 60.41b; 60.41c; 60.251; 60.5580; 60.5580a.
- (39) ASTM D396-78, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (40) ASTM D396-89, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (41) ASTM D396-90, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (42) ASTM D396-92, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (43) ASTM D396-98, Standard Specification for Fuel Oils, (Approved April 10, 1998); IBR approved for §§ 60.41b; 60.41c; 60.111(b); 60.111a(b); 60.5580; 60.5580a.
- (44) ASTM D975-78, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (45) ASTM D975-96, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (46) ASTM D975-98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (47) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, (Approved October 1, 2008); IBR approved for §§ 60.41b; 60.41c; 60.5580; 60.5580a.
- (48) ASTM D1072-80, Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).
- (49) ASTM D1072-90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).
- (50) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.4415(a).
- (51) ASTM D1137-53, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for § 60.45(f).
- (52) ASTM D1137-75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for § 60.45(f).

(53) ASTM D1193-77, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.

(54) ASTM D1193-91, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.

(55) ASTM D1266-87, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

(56) ASTM D1266-91, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

(57) ASTM D1266-98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

(58) ASTM D1266-98 (Reapproved 2003)^{ε,1} Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for § 60.4415(a).

(59) ASTM D1475-60 (Reapproved 1980), Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.

(60) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, §§ 6.5 and 7.1.

(61) ASTM D1475-13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, Approved November 1, 2013; IBR approved for § 60.393a(f).

(62) ASTM D1552-83, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.

(63) ASTM D1552-95, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.

(64) ASTM D1552-01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.

(65) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for § 60.4415(a).

(66) ASTM D1826-77, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.

(67) ASTM D1826-94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.

- (68) ASTM D1826-94 (Reapproved 2003), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, (Approved May 10, 2003), IBR approved for § 60.107a(d).
- (69) ASTM D1835-87, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (70) ASTM D1835-91, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (71) ASTM D1835-97, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (72) ASTM D1835-03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (73) ASTM D1945-64, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (74) ASTM D1945-76, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (75) ASTM D1945-91, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (76) ASTM D1945-96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (77) ASTM D1945-03 (Reapproved 2010), Standard Method for Analysis of Natural Gas by Gas Chromatography, approved January 1, 2010; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (78) ASTM D1945-14 (Reapproved 2019), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, approved December 1, 2019; IBR approved for § 60.485b(g).
- (79) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§ 60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (80) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§ 60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (81) ASTM D1946-90 (Reapproved 2006), Standard Method for Analysis of Reformed Gas by Gas Chromatography, (Approved June 1, 2006), IBR approved for § 60.107a(d).
- (82) ASTM D2013-72, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (83) ASTM D2013-86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (84) ASTM D2015-77 (Reapproved 1978), Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (85) ASTM D2015-96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (86) ASTM D2016-74, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.

- (87) ASTM D2016-83, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (88) ASTM D2234-76, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (89) ASTM D2234-96, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (90) ASTM D2234-97b, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (91) ASTM D2234-98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (92) ASTM D2369-81, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (93) ASTM D2369-87, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (94) ASTM D2369-90, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (95) ASTM D2369-92, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (96) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (97) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (98) ASTM D2369-10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, (Approved June 1, 2015); IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (99) ASTM D2369-20, Standard Test Method for Volatile Content of Coatings, Approved June 1, 2020; IBR approved for §§ 60.393a(f); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (100) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (101) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (102) ASTM D2504-67, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (103) ASTM D2504-77, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (104) ASTM D2504-88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (105) ASTM D2584-68(Reapproved 1985), Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).

- (106) ASTM D2584-94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).
- (107) ASTM D2597-94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for § 60.335(b).
- (108) ASTM D2622-87, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (109) ASTM D2622-94, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (110) ASTM D2622-98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (111) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.4415(a).
- (112) ASTM D2697-22, Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, Approved July 1, 2022; IBR approved for §§ 60.393a(g); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (113) ASTM D2879-83, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1983; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).
- (114) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1996; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).
- (115) ASTM D2879-97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1997; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).
- (116) ASTM D2879-23, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved December 1, 2019; IBR approved for § 60.485b(e).
- (117) ASTM D2880-78, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§ 60.111(b), 60.111a(b), and 60.335(d).
- (118) ASTM D2880-96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§ 60.111(b), 60.111a(b), and 60.335(d).
- (119) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for § 60.564(j).
- (120) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for § 60.564(j).
- (121) ASTM D2986-71, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (122) ASTM D2986-78, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.

- (123) ASTM D2986-95a, Standard Method for Evaluation of Air, AssaMedia by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (124) ASTM D3173-73, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (125) ASTM D3173-87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (126) ASTM D3176-74, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for § 60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.
- (127) ASTM D3176-89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for § 60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.
- (128) ASTM D3177-75, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (129) ASTM D3177-89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (130) ASTM D3178-73 (Reapproved 1979), Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for § 60.45(f).
- (131) ASTM D3178-89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for § 60.45(f).
- (132) ASTM D3246-81, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (133) ASTM D3246-92, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (134) ASTM D3246-96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (135) ASTM D3246-05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.4415(a)(1).
- (136) ASTM D3270-73T, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (137) ASTM D3270-80, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (138) ASTM D3270-91, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (139) ASTM D3270-95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (140) ASTM D3286-85, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (141) ASTM D3286-96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

- (142) ASTM D3370-76, Standard Practices for Sampling Water, IBR approved for § 60.564(j).
- (143) ASTM D3370-95a, Standard Practices for Sampling Water, IBR approved for § 60.564(j).
- (144) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, approved May 10, 2003; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (145) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008); IBR approved for §§ 60.41b; 60.41c; 60.5580; 60.5580a.
- (146) ASTM D3792-79, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (147) ASTM D3792-91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (148) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (149) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (150) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (151) ASTM D4057-81, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (152) ASTM D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (153) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).
- (154) ASTM D4084-82, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for § 60.334(h).
- (155) ASTM D4084-94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for § 60.334(h).
- (156) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§ 60.4360 and 60.4415(a).
- (157) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (158) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).
- (159) ASTM D4239-85, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (160) ASTM D4239-94, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

- (161) ASTM D4239-97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (162) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.335(b).
- (163) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.4415(a).
- (164) ASTM D4442-84, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (165) ASTM D4442-92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (166) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (167) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.5.
- (168) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§ 60.335(b) and 60.4415(a).
- (169) ASTM D4468-85 (Reapproved 2006), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, (Approved June 1, 2006), IBR approved for § 60.107a(e).
- (170) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§ 60.49b(e) and 60.335(b).
- (171) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(d), 60.664(e), and 60.704(d).
- (172) ASTM D4809-06, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), (Approved December 1, 2006), IBR approved for § 60.107a(d).
- (173) ASTM D4809-18, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), approved July 1, 2018; IBR approved for § 60.485b(g).
- (174) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§ 60.4360 and 60.4415(a).
- (175) ASTM D4840-99(2018)e1 Standard Guide for Sample Chain-of-Custody Procedures, approved August 2018; IBR approved for Appendix A-7: Method 23.
- (176) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, approved June 1, 2006; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (177) ASTM D5066-91, Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints—Weight Basis, Approved June 1, 2017; IBR approved for § 60.393a(h).

- (178) ASTM D5087-02 (Reapproved 2021), Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), Approved February 1, 2021; IBR approved for § 60.397a(e); appendix A to subpart MMa.
- (179) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for § 60.4415(a).
- (180) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for appendix A-7 to part 60: Method 24, Section 6.6.
- (181) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for § 60.335(b).
- (182) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for § 60.4415(a).
- (183) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§ 60.334(h) and 60.4360.
- (184) ASTM D5504-08, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, (Approved June 15, 2008), IBR approved for §§ 60.107a(e) and 60.5413(d).
- (185) ASTM D5623-19, Standard Test Method for Sulfur Compounds in Light Petroleum Liquids by Gas Chromatography and Sulfur Selective Detection, (Approved July 1, 2019); IBR approved for § 60.4415(a).
- (186) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for § 60.335(b).
- (187) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §§ 60.45(f) and 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (188) ASTM D5865-10, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved January 1, 2010), IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, section 12.5.2.1.3.
- (189) ASTM D5965-02 (Reapproved 2013), Standard Test Methods for Specific Gravity of Coating Powders, Approved June 1, 2013; IBR approved for § 60.393a(f).
- (190) ASTM D6093-97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, Approved December 1, 2016; IBR approved for §§ 60.393a(g); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (191) ASTM D6216-20, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved September 1, 2020; IBR approved for appendix B to part 60.
- (192) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for § 60.334(h).
- (193) ASTM D6228-98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§ 60.4360 and 60.4415.
- (194) ASTM D6266-00a (Reapproved 2017), Standard Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released From Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), Approved July 1, 2017; IBR approved for § 60.397a(e).

(195) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, (Approved October 1, 2003), IBR approved for § 60.73a(b), table 7 to subpart IIII, table 2 to subpart JJJ, and § 60.4245(d).

(196) ASTM D6348-12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, approved February 1, 2012; IBR approved for § 60.5413c(b).

(197) ASTM D6366-99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for § 60.335(b)(9).

(198) ASTM D6377-20, Standard Test Method for Determination of Vapor Pressure of Crude Oil: VPCR_x (Expansion Method), (Approved June 1, 2020); IBR approved for § 60.113c.

(199) ASTM-D6378-22, Standard Test Method for Determination of Vapor Pressure (VPX) of Petroleum Products, Hydrocarbons, and Hydrocarbon-Oxygenate Mixtures (Triple Expansion Method), (Approved July 1, 2022); IBR approved for § 60.113c.

(200) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for § 60.107a(d) and table 2 to subpart JJJ.

(201) ASTM D6420-18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018, IBR approved for §§ 60.485(g); 60.485a(g); 60.485b(g); 60.611a; 60.614(b) and (e); 60.614a(b) and (e), 60.664(b) and (e); 60.664a(b) and (f); 60.700(c); 60.704(b) (d), and (h); 60.705(l); 60.704a(b) and (f).

(202) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 60.335(a).

(203) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IBR approved for table 2 to subpart JJJ, §§ 60.5413(b) and (d), and 60.5413a(b).

(204) ASTM D6522-11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (Approved December 1, 2011), IBR approved for § 60.37f(a), 60.766(a).

(205) ASTM D6522-20, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, approved June 1, 2020; IBR approved for §§ 60.5413b(b); 60.5413c(b).

(206) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for § 60.335(b).

(207) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for § 60.4415(a).

(208) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§ 60.41b, 60.41c, 60.5580, and 60.5580a.

(209) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for § 60.56c(b) and appendix B to part 60: Performance Specification 12A, Section 8.6.2.

(210) ASTM D6784-02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008; IBR approved for § 60.56c(b).

(211) ASTM D6784-16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved March 1, 2016; IBR approved for appendix B to part 60.

(212) ASTM D6911-15 Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis, approved January 15, 2015; IBR approved for Appendix A-7: Method 23; Appendix A-8: Method 30B.

(213) ASTM D7039-15a, Standard Test Method for Sulfur in Gasoline, Diesel Fuel, Jet Fuel, Kerosine, Boideisel, Biodiesel Blends, and Gasoline-Ethanol Blends by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry, (Approved July 1, 2015); IBR approved for § 60.4415(a).

(214) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§ 60.41b, 60.41c, 60.5580, and 60.5580a.

(215) ASTM D7520-16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 60.123(c)(6); 60.123(c)(6)(i); 60.123(c)(6)(ii); 60.123(c)(6)(v); 60.123a(c)(6)(ii); 60.123a(c)(6)(ii)(A); 60.123a(c)(6)(ii)(B); 60.123a(c)(6)(ii)(E); 60.271(k); 60.272(a) and (b); 60.273(c) and (d); 60.274(h); 60.275(e); 60.276(c); 60.271a; 60.272a(a) and (b); 60.273a(c) and (d); 60.274a(h); 60.275a(e); 60.276a(f); 60.271b; 60.272b(a) and (b); 60.273b(c) and (d); 60.274b(h); 60.275b(e); 60.276b(f); 60.374a(d).

(216) ASTM E168-67, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(217) ASTM E168-77, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(218) ASTM E168-92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400, 60.5400a(f).

(219) ASTM E168-16 (Reapproved 2023), Standard Practices for General Techniques of Infrared Quantitative Analysis, approved January 1, 2023; IBR approved for § 60.485b(d).

(220) ASTM E169-63, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f) .

(221) ASTM E169-77, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), and 60.593a(b), 60.632(f).

(222) ASTM E169-93, General Techniques of Ultraviolet Quantitative Analysis, (Approved May 15, 1993), IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), and 60.5400a(f).

(223) ASTM E169-16 (Reapproved 2022), Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, approved November 1, 2022; IBR approved for § 60.485b(d).

(224) ASTM E260-73, General Gas Chromatography Procedures, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(225) ASTM E260-91, General Gas Chromatography Procedures, (IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(226) ASTM E260-96, General Gas Chromatography Procedures, approved April 10, 1996; IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), 60.5400a(f), 60.5406(b), 60.5406a(b)(3), 60.5400b(a)(2), 60.5401b(a)(2), 60.5406b(b)(3), 60.5400c(a), and 60.5401c(a).

(227) ASTM E260-96 (Reapproved 2019), Standard Practice for Packed Column Gas Chromatography, approved September 1, 2029; IBR approved for § 60.485b(d).

(228) ASTM E617-13, Standard Specification for Laboratory Weights and Precision Mass Standards, approved May 1, 2013, IBR approved for appendix A-3: Methods 4, 5, 5H, 5I, and appendix A-8: Method 29.

(229) ASTM E871-82 (Reapproved 2013), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved August 15, 2013), IBR approved for appendix A-8: method 28R.

(230) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, (Approved August 1, 2011), IBR approved for § 60.73a(c).

(231) ASTM E2515-11, Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel, (Approved November 1, 2011), IBR approved for § 60.534 and § 60.5476.

(232) ASTM E2618-13 Standard Test Method for Measurement of Particulate Matter Emissions and Heating Efficiency of Outdoor Solid Fuel-Fired Hydronic Heating Appliances, (Approved September 1, 2013), IBR approved for § 60.5476.

(233) ASTM E2779-10, Standard Test Method for Determining Particulate Matter Emissions from Pellet Heaters, (Approved October 1, 2010), IBR approved for § 60.534.

(234) ASTM E2780-10, Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters, (Approved October 1, 2010), IBR approved for appendix A: method 28R.

(235) ASTM UOP539-97, Refinery Gas Analysis by Gas Chromatography, (Copyright 1997), IBR approved for § 60.107a(d).

(i) Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209; phone: (301) 927-7077; website: <https://www.aoac.org/>.

(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC), 11th edition, 1970, pp. 11-12, IBR approved for §§ 60.204(b), 60.214(b), 60.224(b), and 60.234(b).

(2) [Reserved]

(j) CSA Group (CSA) (formerly Canadian Standards Association), 178 Rexdale Boulevard, Toronto, Ontario, Canada; phone: (800) 463-6727; website: <https://shop.csa.ca>.

(1) CSA B415.1-10, Performance Testing of Solid-fuel-burning Heating Appliances, (March 2010), IBR approved for §§ 60.534; 60.5476.

(2) [Reserved]

(k) U.S. Environmental Protection Agency (EPA), 1200 Pennsylvania Avenue NW, Washington, DC 20460; phone: (202) 272-0167; website: www.epa.gov/aboutepa/forms/contact-epa.

(1) EPA-453/R-08-002, Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations, September 2008, Office of Air Quality Planning and Standards (OAQPS); IBR approved for §§ 60.393a(e) and (h); 60.395a(k); 60.397a(e); appendix A to subpart MMa.

(2) EPA-454/B-08-002, Quality Assurance Handbook for Air Pollution Measurement Systems; Volume IV: Meteorological Measurements, Version 2.0 (Final), March 2008; IBR approved for appendix K to this part.

(3) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997; IBR approved for §§ 60.124(f); 60.124a(f); 60.273(e); 60.273a(e); 60.273b(e); 60.373a(b); 60.2145(r); 60.2710(r); 60.2944(c), 60.3043(c), 60.4880(b); 60.5200(b). (Available from: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.pdf>).

(4) EPA-600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012; IBR approved for §§ 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).

(5) In EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (Available from: www.epa.gov/hw-sw846/sw-846-compendium):

(i) SW-846-6010D, Inductively Coupled Plasma-Optical Emission Spectrometry, Revision 5, July 2018; IBR approved for appendix A-5 to this part.

(ii) SW-846-6020B, Inductively Coupled Plasma-Mass Spectrometry, Revision 2, July 2014; IBR approved for appendix A-5 to this part.

(l) European Standards (EN), European Committee for Standardization, Management Centre, Avenue Marnix 17, B-1000 Brussels, Belgium; phone: + 32 2 550 08 11; website: <https://www.en-standard.eu>.

(1) DIN EN 303-5:2012E (EN 303-5), Heating boilers—Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW—Terminology, requirements, testing and marking, (October 2012), IBR approved for § 60.5476.

(2) [Reserved]

(m) GPA Midstream Association, 6060 American Plaza, Suite 700, Tulsa, OK 74135; phone: (918) 493-3872; website: www.gpamidstream.org.

(1) GPA Midstream Standard 2140-17 (GPA 2140-17), Liquefied Petroleum Gas Specifications and Test Methods, (Revised 2017), IBR approved for § 60.4415(a).

(2) GPA Midstream Standard 2166-17 (GPA 2166-17), Obtaining Natural Gas Samples for Analysis by Gas Chromatography, (Reaffirmed 2017), IBR approved for § 60.4415(a).

(3) Gas Processors Association Standard 2172-09, Calculation of Gross Heating Value, Relative Density, Compressibility and Theoretical Hydrocarbon Liquid Content for Natural Gas Mixtures for Custody Transfer (2009), IBR approved for § 60.107a(d).

(4) GPA Standard 2174-14 (GPA 2174-14), Obtaining Liquid Hydrocarbon Samples for Analysis by Gas Chromatography, (Revised 2014), IBR approved for § 60.4415(a).

(5) GPA Standard 2261-19 (GPA 2261-19), Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, (Revised 2019), IBR approved for § 60.4415(a).

(6) Gas Processors Association Standard 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision, IBR approved for §§ 60.105(b), 60.107a(b), 60.334(h), 60.4360, and 60.4415(a).

(n) International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland; phone: + 41 22 749 01 11; website: www.iso.org.

(1) ISO 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—part 4: Test Cycles for Different Engine Applications, IBR approved for § 60.4241(b).

(2) ISO 2314:2009(E), Gas turbines-Acceptance tests, Third edition (December 15, 2009), IBR approved for §§ 60.5580; 60.5580a.

(3) ISO 8316: Measurement of Liquid Flow in Closed Conduits—Method by Collection of the Liquid in a Volumetric Tank (1987-10-01)—First Edition, IBR approved for § 60.107a(d).

(4) ISO 10715:1997(E), Natural gas—Sampling guidelines, (First Edition, June 1, 1997), IBR approved for § 60.4415(a).

(o) National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161.

(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for § 60.31e.

(2) [Reserved]

(p) North American Electric Reliability Corporation, 1325 G Street NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, updated November 19, 2012, IBR approved for §§ 60.4211(f) and 60.4243(d). Also available online: http://www.nerc.com/files/EOP-002-3__1.pdf.

(2) [Reserved]

(q) Pacific Lumber Inspection Bureau (formerly West Coast Lumber Inspection Bureau), 1010 South 336th Street #210, Federal Way, WA 98003; phone: (253) 835.3344; website: www.plib.org.

(1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21, 90 and 91, September 3, 1970, revised 1984, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(r) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092; phone (800) 332-8686; website: www.tappi.org.

(1) TAPPI Method T 624 cm-11, (Copyright 2011), IBR approved, for §§ 60.285(d) and 60.285a(d).

(2) [Reserved]

(s) Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.

(1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(t) Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.

(1) Method 209A, Total Residue Dried at 103-105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved for § 60.683(b).

(2) [Reserved]

Editorial Note: For Federal Register citations affecting § 60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 60.18 General control device and work practice requirements.

(a) *Introduction.*

(1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares*. Paragraphs (c) through (f) apply to flares.

(c)

(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)

(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, $V_{\max}$, as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)

(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant, } 1.740 \times 10^{-7} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in § 60.17); and

H_i = Net heat of combustion of sample component i , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, $V_{\max}$, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10} (V_{\max}) = (H_T + 28.8)/31.7$$

$V_{\max}$ = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, $V_{\max}$, for air-assisted flares shall be determined by the following equation.

$$V_{\max} = 8.706 + 0.7084 (H_T)$$

$V_{\max}$ = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

- (i) Any emissions imaged by the optical gas instrument;
- (ii) Indications of liquids dripping;
- (iii) Indications by a sensor that a seal or barrier fluid system has failed; or
- (iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:

- (i) Skip period leak detection and repair;
- (ii) Quality improvement plans; or
- (iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.

(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under § 60.13(i).

(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.

(5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

§ 60.19 General notification and reporting requirements.

(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)

(1)

(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time

periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

Table 1 to Subpart A of Part 60—Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^a When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

Appendix D. 40 CFR Part 63, Subpart A – General Provisions

§ 63.1 Applicability.

(a) General.

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.

(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7)-(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) Initial applicability determination for this part.

(1) The provisions of this part apply to the owner or operator of any stationary source that -

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in § 63.10(b)(3).

(c) Applicability of this part after a relevant standard has been set under this part.

(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in § 63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether -

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3)-(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(6) A major source may become an area source at any time upon reducing its emissions of and potential to emit hazardous air pollutants, as defined in this subpart, to below the major source thresholds established in § 63.2, subject to the provisions in paragraphs (c)(6)(i) and (ii) of this section.

(i) A major source reclassifying to area source status is subject to the applicability of standards, compliance dates and notification requirements specified in (c)(6)(i)(A) of this section. An area source that previously was a major source and becomes a major source again is subject to the applicability of standards, compliance dates, and notification requirements specified in (c)(6)(i)(B) of this section:

(A) A major source reclassifying to area source status under this part remains subject to any applicable major source requirements established under this part until the reclassification becomes effective. After the reclassification becomes effective, the source is subject to any applicable area source requirements established under this part immediately, provided the compliance date for the area source requirements has passed. The owner or operator of a major source that becomes an area source subject to newly applicable area source requirements under this part must comply with the initial notification requirements pursuant to § 63.9(b). The owner or operator of a major source that becomes an area source must also provide to the Administrator any change in the information already provided under § 63.9(b) per § 63.9(j).

(B) An area source that previously was a major source under this part and that becomes a major source again is subject to the applicable major source requirements established under this part immediately upon becoming a major source again, provided the compliance date for the major source requirements has passed, notwithstanding any provision within the applicable subparts. The owner or operator of an area source that becomes a major source again must comply with the initial notification pursuant to § 63.9(b). The owner or operator must also provide to the Administrator any change in the information already provided under § 63.9(b) per § 63.9(j).

(ii) Becoming an area source does not absolve a source subject to an enforcement action or investigation for major source violations or infractions from the consequences of any actions occurring when the source was major. Becoming a major source does not absolve a source subject to an enforcement action or investigation for area source violations or infractions from the consequences of any actions occurring when the source was an area source.

(iii) After September 10, 2024, affected sources subject to the following 40 CFR part 63 subparts on September 10, 2024, must remain subject to those subparts, and any modifications thereafter, even if the source becomes an area source by reducing both its actual emissions and potential to emit hazardous air pollutants to below major source thresholds: F, G, H, I, L, R, X, CC, GG, II, JJ, KK, LL, MM, EEE, JJJ, LLL, MMM, RRR, UUU, FFFF, JJJJ, MMMM, PPPP, ZZZZ, CCCCC, DDDDD, FFFFF, IIIII, LLLLL, YYYYY, JJJJJ, EEEEEEE.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means:

- (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or
- (2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or
- (3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

- (1) With regard to an emission standard established under this part, the date of promulgation in the Federal Register of such standard; or
- (2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

- (1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;
- (2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;
- (3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;
- (4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

- (5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;
- (6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:
- (i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;
 - (ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;
 - (iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";
 - (iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and
 - (v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.
- (7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and
- (8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Force majeure means, for purposes of § 63.7, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential

to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

- (1) Indicator(s) of performance - the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.
- (2) Measurement techniques - the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.
- (3) Monitoring frequency - the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.
- (4) Averaging time - the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

- (1) Emission reduction impacts of controlling individual sources versus groups of sources;
- (2) Cost effectiveness of controlling individual equipment;
- (3) Flexibility to accommodate common control strategies;
- (4) Cost/benefits of emissions averaging;
- (5) Incentives for pollution prevention;
- (6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);
- (7) Feasibility and cost of monitoring; and
- (8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101-13109). The definition is as follows:

(1) *Source reduction* is any practice that:

- (i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and
 - (ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.
- (2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.
- (3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
- (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the Federal Register.

Relevant standard means:

- (1) An emission standard;
- (2) An alternative emission standard;
- (3) An alternative emission limitation; or
- (4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

- (1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:
 - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (ii) The delegation of authority to such representative is approved in advance by the Administrator.
- (2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: “responsible official” shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at www.epa.gov/PerformanceTrack) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

Standard conditions means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part and/or

(2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) *System International (SI) units of measure:*

A = ampere

g = gram

Hz = hertz

J = joule

°K = degree Kelvin

kg = kilogram

l = liter

m = meter

m³ = cubic meter

mg = milligram = 10⁻³ gram

ml = milliliter = 10⁻³ liter

mm = millimeter = 10⁻³ meter

Mg = megagram = 10⁶ gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10⁻⁹ gram

nm = nanometer = 10⁻⁹ meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

μg = microgram = 10⁻⁶ gram

μl = microliter = 10⁻⁶ liter

(b) Other units of measure:

Btu = British thermal unit

°C = degree Celsius (centigrade)

cal = calorie

cfm = cubic feet per minute

cc = cubic centimeter

cu ft = cubic feet

d = day

dcf = dry cubic feet

dcm = dry cubic meter

dscf = dry cubic feet at standard conditions

dscm = dry cubic meter at standard conditions

eq = equivalent

°F degree Fahrenheit

ft = feet

ft² = square feet

ft³ = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in. H₂ O = inches of water

K = 1,000

kcal = kilocalorie

lb = pound

lpm = liter per minute

meq = milliequivalent

min = minute

MW = molecular weight

oz = ounces

ppb = parts per billion

ppbw = parts per billion by weight

ppbv = parts per billion by volume

ppm = parts per million

ppmw = parts per million by weight

ppmv = parts per million by volume

psia = pounds per square inch absolute

psig = pounds per square inch gage

°R = degree Rankine

scf = cubic feet at standard conditions

scfh = cubic feet at standard conditions per hour

scm = cubic meter at standard conditions

scmm = cubic meter at standard conditions per minute

sec = second

sq ft = square feet

std = at standard conditions

v/v = volume per volume

yd² = square yards

yr = year

(c) *Miscellaneous:*

act = actual

avg = average

I.D. = inside diameter

M = molar

N = normal

O.D. = outside diameter

% = percent

§ 63.4 Prohibited activities and circumvention.

(a) Prohibited activities.

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3)-(5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to -

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(c) *Fragmentation.* Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

§ 63.5 Preconstruction review and notification requirements.

(a) Applicability.

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) Requirements for existing, newly constructed, and reconstructed sources.

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

- (i) Construct a new affected source that is major-emitting and subject to such standard;
- (ii) Reconstruct an affected source that is major-emitting and subject to such standard; or
- (iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) Application for approval of construction or reconstruction. The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) General application requirements.

- (i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction

begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

- (A) The applicant's name and address;
- (B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2 or in the relevant standard;
- (C) The address (i.e., physical location) or proposed address of the source;
- (D) An identification of the relevant standard that is the basis of the application;
- (E) The expected date of the beginning of actual construction or reconstruction;
- (F) The expected completion date of the construction or reconstruction;
- (G) [Reserved]
- (H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and
- (I) [Reserved]
- (J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section -

- (i) A brief description of the affected source and the components that are to be replaced;
- (ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;
- (iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;
- (iv) The estimated life of the affected source after the replacements; and
- (v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.
- (vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.*

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

- (A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;
- (B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;
- (C) The extent to which the components being replaced cause or contribute to the emissions from the source; and
- (D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application

contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with -

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

§ 63.6 Compliance with standards and maintenance requirements.

(a) Applicability.

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with § 63.1(a)(4) unless -

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) Compliance dates for new and reconstructed sources.

(1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with § 63.9(d)

(6) [Reserved]

(7) When an area source increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source, the portion of the facility that meets the definition of a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) Compliance dates for existing sources.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part, except as provided in § 63.1(c)(6)(i). Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source and meets the definition of an existing source in the applicable major source standard shall be subject to relevant standards for existing sources. Except as provided in paragraph § 63.1(c)(6)(i)(B), such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) Operation and maintenance requirements.

(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to -

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) [Reserved]

(iii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

- (A) Does not address a startup, shutdown, or malfunction event that has occurred;
- (B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
- (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator develop a startup, shutdown, and malfunction plan which conforms to the provisions of this part, but may do so by citing to the relevant subpart or subparagraphs of paragraph (e) of this section. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in § 70.2 and § 71.2 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) Compliance with nonopacity emission standards -

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) Methods for determining compliance.

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the Federal Register a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any Federal Register notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards -*

(1) *Applicability.* The opacity and visible emission standards set forth in this part must apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

- (A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;
- (B) The opacity or visible emission test was conducted under representative operating conditions for the source;
- (C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e); and
- (D) The opacity or visible emission test was appropriately quality-assured, as specified in § 63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of § 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see

appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that -

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) Extension of compliance with emission standards.

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) Extension of compliance for early reductions and other reductions -

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance

granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(2) The date by which final compliance is to be achieved.

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C)-(D)

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any

supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) Except as provided in paragraph (a)(4) of this section, if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) Except as provided in paragraph (a)(4) of this section, when an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(4) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure:

(i) The owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraph (a)(2) or (a)(3) of this section, or elsewhere in this part, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(ii) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(iii) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(iv) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(4)(i), (a)(4)(ii), and (a)(4)(iii) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Notification of performance test.

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) Quality assurance program.

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(A) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60 of this chapter; Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60; Methods 18 and 19 of appendix A-6 of part 60; Methods 20, 22, and 25A of appendix A-7 of part 60; Methods 30A and 30B of appendix A-8 of part 60; and Methods 303, 318, 320, and 321 of appendix A of this part. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source

owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request, and the compliance authority may grant, a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(B) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (1) Preparing the sample;
- (2) Confirming the true concentration of the sample;
- (3) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;
- (4) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (5) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (6) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (7) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(8) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed.

(9) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(C) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(1) Checking audit samples to confirm their true value as reported by the AASP.

(2) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.

(3) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(D) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119*. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards_gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (c)(2)(iii)(B) through (C) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) Approval of site-specific test plan.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.*

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under § 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator -

- (i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in § 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or
- (ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in § 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or
- (iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or
- (iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that -

- (i) A sample is accidentally lost after the testing team leaves the site; or
- (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
- (iii) Extreme meteorological conditions occur; or
- (iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method -*

(1) *General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

- (i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;
- (ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and
- (iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) Data analysis, recordkeeping, and reporting.

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) Contents of a performance test, CMS performance evaluation, or CMS quality assurance test report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard, test method, CMS performance specification, or quality assurance requirement for a CMS, or as otherwise approved by the Administrator in writing, the report shall include the elements identified in paragraphs (g)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard, and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method, CEMS, PEMS, or COMS performance specification, or on-going quality assurance requirement for a CEMS, PEMS, or COMS requires you record or report, the following shall be included in your report: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test including his/her email address.

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) Waiver of performance tests.

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) Request to waive a performance test.

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(i), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she -

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.8 Monitoring requirements.

(a) Applicability.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in § 63.11.

(b) Conduct of monitoring.

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator -

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see § 63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see § 63.90(a) for definition).

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is -

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source must maintain and operate each CMS as specified in § 63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in § 63.6(e)(3).

(2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7) (i) A CMS is out of control if -

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) *Quality control program.*

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

- (i) Initial and any subsequent calibration of the CMS;
- (ii) Determination and adjustment of the calibration drift of the CMS;
- (iii) Preventive maintenance of the CMS, including spare parts inventory;
- (iv) Data recording, calculations, and reporting;
- (v) Accuracy audit procedures, including sampling and analysis methods; and
- (vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) Performance evaluation of continuous monitoring systems -

(1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

- (ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of

instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) Reporting performance evaluation results.

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation containing the information specified in § 63.7(g)(2)(i) through (vi) simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation, unless otherwise specified in a relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

(f) Use of an alternative monitoring method -

(1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in § 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative

method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4) (i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under § 63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in § 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 8.4 of Performance Specification 2.

(g) *Reduction of monitoring data.*

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these

periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of § 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

§ 63.9 Notification requirements.

(a) Applicability and general information.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) Initial notifications.

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source subsequently becomes a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section. Area sources previously subject to major source requirements that become major sources again are also subject to the notification requirements of this paragraph and must submit the notification according to the requirements of paragraph (k) of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:

- (i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and
- (ii)-(iv) [Reserved]
- (v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:

- (i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and
- (ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.
- (iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or

the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.*

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator within 15 calendar days after the change. The owner or operator of a major source that reclassifies to area source status is also subject to the notification requirements of this paragraph. The owner or operator may submit the application for reclassification with the regulatory authority (e.g., permit application) according to paragraph (k) of this section to fulfill the requirements of this paragraph, but the information required in paragraphs (j)(1) through (4) of this section must be included. A source which reclassified after January 25, 2018, and before January 19, 2021, and has not yet provided the notification of a change in information is required to provide such notification no later than February 2, 2021, according to the requirements of paragraph (k) of this section. Beginning January 19, 2021, the owner or operator of a major source that reclassifies to area source status must submit the notification according to the requirements of paragraph (k) of this section. A notification of reclassification must contain the following information:

- (1) The name and address of the owner or operator;
- (2) The address (i.e., physical location) of the affected source;
- (3) An identification of the standard being reclassified from and to (if applicable); and
- (4) Date of effectiveness of the reclassification.

(k) *Electronic submission of notifications or reports.* If you are required to submit notifications or reports following the procedure specified in this paragraph (k), you must submit notifications or reports to the EPA via the EPA's Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The notification or report must be submitted by the deadline specified. The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit the information claimed to be CBI according to the procedures in paragraph (k)(3) of this section.

(1) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the electronic submittal requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (k)(1)(i) through (vii) of this section.

(i) You must have been or will be precluded from accessing CEDRI and submitting a required notification or report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(ii) The outage must have occurred within the period of time beginning 5 business days prior to the date that the notification or report is due.

(iii) The outage may be planned or unplanned.

(iv) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(v) You must provide to the Administrator a written description identifying:

(A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(B) A rationale for attributing the delay in submitting beyond the regulatory deadline to EPA system outage;

(C) Measures taken or to be taken to minimize the delay in submitting; and

(D) The date by which you propose to submit, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.

(vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(vii) In any circumstance, the notification or report must be submitted electronically as soon as possible after the outage is resolved.

(2) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the electronic submittal requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (k)(2)(i) through (v) of this section.

(i) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a notification or report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(ii) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in submitting through CEDRI.

(iii) You must provide to the Administrator:

- (A) A written description of the force majeure event;
 - (B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
 - (C) Measures taken or to be taken to minimize the delay in reporting; and
 - (D) The date by which you propose to submit the notification or report, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.
- (iv) The decision to accept the claim of force majeure and allow an extension to the submittal deadline is solely within the discretion of the Administrator.
- (v) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.
- (3) If you wish to assert a CBI claim for some of the information submitted under paragraph (k) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA following the procedures in paragraphs (k)(3)(i) through (iv) of this section. Where a subpart specifies a specific file format for the report or notification for which you are asserting a claim of CBI, the complete file that you submit under this paragraph (k)(3) must be in the same file format specified in the subpart.
- (i) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data are not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.
 - (ii) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in paragraph (k) of this section.
 - (iii) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address *oaqpscbi@epa.gov*, and as described above, should include clear CBI markings. Electronic Reporting Tool (ERT) files should be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should be flagged to the attention of the Sector Lead for the subpart for which you are submitting your notification or report. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email *oaqpscbi@epa.gov* to request a file transfer link.
 - (iv) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. ERT files should also be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should also be flagged to the attention of the Sector Lead for the subpart for which you are submitting your notification or report. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

§ 63.10 Recordkeeping and reporting requirements.

(a) Applicability and general information.

- (1) The applicability of this section is set out in § 63.1(a)(4).
- (2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.
- (3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.
- (4) (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.
- (5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).
- (6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).
- (7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) *General recordkeeping requirements.*

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

(i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;

(ii) The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) (A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)); or

(B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));

(v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly

measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) If an owner or operator determines that his or her existing or new stationary source is in the source category regulated by a standard established pursuant to section 112 of the Act, but that source is not subject to the relevant standard (or other requirement established under this part) because of enforceable limitations on the source's potential to emit, or the source otherwise qualifies for an exclusion, the owner or operator must keep a record of the applicability determination. The applicability determination must be kept on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part), whichever comes first if the determination is made prior to January 19, 2021. The applicability determination must be kept until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part) if the determination was made on or after January 19, 2021. The record of the applicability determination must be signed by the person making the determination and include an emissions analysis (or other information) that demonstrates the owner or operator's conclusion that the source is unaffected (*e.g.*, because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make an applicability finding for the source with regard to the relevant standard or other requirement. If applicable, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist

sources in making applicability determinations under section 112 of the Act, if any. The requirements to determine applicability of a standard under § 63.1(b)(3) and to record the results of that determination under this paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of -

- (1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);
- (2)-(4) [Reserved]
- (5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
- (6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);
- (7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;
- (8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
- (9) [Reserved]
- (10) The nature and cause of any malfunction (if known);
- (11) The corrective action taken or preventive measures adopted;
- (12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
- (13) The total process operating time during the reporting period; and
- (14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).
- (15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements.*

- (1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in § 63.16, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).
- (2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The

owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under § 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under § 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5) (i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that

caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with § 63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in § 63.9(i).

(e) Additional reporting requirements for sources with continuous monitoring systems -

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) Reporting results of continuous monitoring system performance evaluations.

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) Excess emissions and continuous monitoring system performance report and summary report.

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when -

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(D) The affected source is complying with the Performance Track Provisions of § 63.16, which allows less frequent reporting.

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §§ 63.8(c)(7) and 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report - Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

- (A) The company name and address of the affected source;
- (B) An identification of each hazardous air pollutant monitored at the affected source;
- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations specified in the relevant standard(s);
- (F) The monitoring equipment manufacturer(s) and model number(s);
- (G) The date of the latest CMS certification or audit;
- (H) The total operating time of the affected source during the reporting period;
- (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
- (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
- (K) A description of any changes in CMS, processes, or controls since the last reporting period;
- (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
- (M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the

reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of recordkeeping or reporting requirements.*

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under §§ 63.6(i) and 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she -

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.11 Control device and work practice requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) This section contains requirements for control devices used to comply with applicable subparts of this part. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(3) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40

CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.*

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity $V_{\max}$, as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 MJ/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740 \times 10^{-7} \left(\frac{1}{\text{ppmv}} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in § 63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity $V_{\max}$, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, $V_{\max}$, for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{\max}) = (H_T + 28.8)/31.7$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity $V_{\max}$. The maximum permitted velocity, $V_{\max}$, for air-assisted flares shall be determined by the following equation:

$$V_{\max} = 8.71 + 0.708(H_T)$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

(c) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (c), (d), and (e) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (c), (d), and (e) of this section continue to apply. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (c)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (c), (d), and (e) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, and 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(d) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to 40 CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (e) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (e)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subparts to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment, the following are not applicable for the equipment being monitored:

- (i) Skip period leak detection and repair;
- (ii) Quality improvement plans; or
- (iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (d)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(e) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (e)(1) through (e)(5) of this section.

(1) *Instrument specifications.* The optical gas imaging instrument must comply with the requirements specified in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (e)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) *Daily instrument check.* On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (e)(2)(i) of this section in accordance with the procedure specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (e)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (e)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate calculated in paragraph (e)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under § 63.177 or § 63.178, whichever is applicable.

(3) *Leak survey procedure.* Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) *Recordkeeping.* Keep the records described in paragraphs (e)(4)(i) through (e)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (e)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (e)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (e)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (e)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) *Recordkeeping requirements in the applicable subpart.* A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subparts.

(5) *Reporting.* Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from -

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b) (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate state agency of any state to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain federal or state reporting requirement. Any information

required to be submitted electronically by this part via the EPA's CEDRI may, at the discretion of the delegated authority, satisfy the requirements of this paragraph. The Administrator may permit all or some of the information to be submitted to the appropriate state agency only, instead of to the EPA and the state agency with the exception of federal electronic reporting requirements under this part. Sources may not be exempted from federal electronic reporting requirements.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional offices. If a request, report, application, submittal, or other communication is required by this part to be submitted electronically via the EPA's CEDRI then such submission satisfies the requirements of this paragraph (a).

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square - Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

EPA Region IX (Arizona, California, Hawaii, Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§ 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the Federal Register and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov or go to www.archives.gov/federal-register/cfr/ibr-locations.html. In addition, these materials are available from the following sources:

(b) American Conference of Governmental Industrial Hygienists (ACGIH), Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742–2020.

(1) Industrial Ventilation: A Manual of Recommended Practice, 22nd Edition, 1995, Chapter 3, “Local Exhaust Hoods” and Chapter 5, “Exhaust System Design Procedure.” IBR approved for §§ 63.843(b) and 63.844(b).

(2) Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, “Local Exhaust Hoods” and Chapter 5, “Exhaust System Design Procedure.” IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(3) Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010. IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(c) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for §§ 63.111, 63.1402, 63.2406 and 63.7944.

Note 1 to paragraph (c)(1):

API Publication 2517 available through reseller HIS Markit at <https://global.ihs.com/>

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g).

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2 (API MPMS 19.2), Evaporative Loss From Floating-Roof Tanks, First Edition, April 1997, IBR approved for §§ 63.1251 and 63.12005.

(d) American Public Health Association, 1015 18th Street NW, Washington, DC 20036; phone (844) 232–3707; email: standardmethods@subscriptionoffice.com; website: www.standardmethods.org.

(1) Standard Method 5210, Biochemical Oxygen Demand (BOD), revised December 10, 2019; IBR approved for § 63.457(c)

(2) [Reserved]

(e) American Society of Heating, Refrigerating, and Air-Conditioning Engineers at 1791 Tullie Circle, NE., Atlanta, GA 30329 orders@ashrae.org.

(1) American Society of Heating, Refrigerating, and Air-Conditioning Engineers Method 52.1, *Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter* June 4, 1992; IBR approved for § 63.11516(d).

(2) ANSI/ASHRAE Standard 52.2–2017, *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*, copyright 2017; IBR approved for § 63.11173(e).

(f) American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990, Telephone (800) 843–2763, <http://www.asme.org>; also available from HIS, Incorporated, 15 Inverness Way East, Englewood, CO 80112, Telephone (877) 413–5184, <http://global.ihs.com>.

(1) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§ 63.309(k), 63.457(k), 63.772(e) and (h), 63.865(b), 63.997(e), 63.1282(d) and (g), and 63.1625(b), table 5 to subpart EEEE, §§ 63.3166(a), 63.3360(e), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), and 63.5160(d), table 4 to subpart UUUU, table 3 to subpart YYYY, §§ 63.7822(b), 63.7824(e), 63.7825(b), 63.8000(d), 63.9307(c), 63.9323(a), 63.9621(b) and (c), 63.11148(e), 63.11155(e), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, and table 4 to subpart AAAAA, table 5 to subpart DDDDD, table 4 to subpart JJJJ, table 4 to subpart KKKKK, table 4 to subpart SSSSS, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZZ, and table 4 to subpart JJJJJ.

(2) [Reserved]

(g) The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida 33830.

(1) Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991:

(i) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(f), § 63.626(f).

(ii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A—Volumetric Method, IBR approved for § 63.606(f), § 63.626(f).

(iii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B—Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f).

(iv) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C—Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f).

(v) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A—Volumetric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(vi) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B—Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(vii) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C—Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(2) [Reserved]

(h) Association of Official Analytical Chemists (AOAC) International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia 22201–3301, Telephone (703) 522–3032, Fax (703) 522–5468.

- (1) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (2) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (3) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (4) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (5) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (6) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (7) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(i) ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428–2959, Telephone (610) 832–9585, <http://www.astm.org>; also available from ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106–1346, Telephone (734) 761–4700, <http://www.proquest.com>.

- (1) ASTM D95–05 (Reapproved 2010), Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation, approved May 1, 2010, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (2) ASTM D240–09 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved July 1, 2009, IBR approved for table 6 to subpart DDDDD.
- (3) ASTM Method D388–05, Standard Classification of Coals by Rank, approved September 15, 2005, IBR approved for §§ 63.7575, 63.10042, and 63.11237.
- (4) ASTM Method D396–10, Standard Specification for Fuel Oils, including Appendix X1, approved October 1, 2010, IBR approved for § 63.10042.
- (5) ASTM D396–10, Standard Specification for Fuel Oils, approved October 1, 2010, IBR approved for §§ 63.7575 and 63.11237.
- (6) ASTM D523–89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.
- (7) ASTM D975–11b, Standard Specification for Diesel Fuel Oils, approved December 1, 2011, IBR approved for § 63.7575.
- (8) ASTM D1193–77, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.
- (9) ASTM D1193–91, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.
- (10) ASTM D1331–89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for appendix A to part 63: Method 306B, Sections 6.2, 11.1, and 12.2.2.

- (11) ASTM D1475–90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for appendix A to subpart II.
- (12) ASTM D1475–13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, approved November 1, 2013, IBR approved for §§ 63.3151(b), 63.3941(b) and (c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), 63.4741(b) and (c), 63.4751(c), and 63.4941(b) and (c).
- (13) ASTM Method D1835–05, Standard Specification for Liquefied Petroleum (LP) Gases, approved April 1, 2005, IBR approved for §§ 63.7575 and 63.11237.
- (14) ASTM D1945–03 (Reapproved 2010), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved January 1, 2010, IBR approved for §§ 63.670(j), 63.772(h), and 63.1282(g).
- (15) ASTM D1945–14, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved November 1, 2014, IBR approved for § 63.670(j).
- (16) ASTM D1946–77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b).
- (17) ASTM D1946–90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, 1994, IBR approved for §§ 63.11(b), 63.987(b), and 63.1412.
- (18) ASTM D1963–85 (Reapproved 1996), Standard Test Method for Specific Gravity of Drying Oils, Varnishes, Resins, and Related Materials at 25/25 °C, approved November 29, 1985, IBR approved for § 63.3360(c).
- (19) ASTM D2013/D2013M–09, Standard Practice for Preparing Coal Samples for Analysis, (Approved November 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (20) ASTM D2099–00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.
- (21) ASTM D2111–10 (Reapproved 2015), Standard Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures, approved June 1, 2015, IBR approved for §§ 63.3360(c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), and 63.4741(a).
- (22) ASTM D2216–05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass, IBR approved for the definition of “Free organic liquids” in § 63.10692.
- (23) ASTM D2234/D2234M–10, Standard Practice for Collection of a Gross Sample of Coal, approved January 1, 2010, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (24) ASTM D2369–93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (25) ASTM D2369–95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (26) ASTM D2369–10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, approved June 1, 2015, IBR approved for §§ 63.3151(a), 63.3360(c), 63.3961(j), 63.4141(a) and (b), 63.4161(h), 63.4321(e), 63.4341(e), 63.4351(d), 63.4541(a), and 63.4561(j), appendix A to subpart PPPP, and §§ 63.4741(a), 63.4941(a) and (b), 63.4961(j), and 63.8055(b).
- (27) ASTM D2382–76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).
- (28) ASTM D2382–88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).

- (29) ASTM D2697–86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§ 63.3521(b), and 63.5160(c).
- (30) ASTM D2697–03 (Reapproved 2014), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, approved July 1, 2014, IBR approved for §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), 63.4941(b), and 63.8055(b).
- (31) ASTM D2879–83, Standard Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, Approved November 28, 1983, IBR approved for §§ 63.111, 63.1402, 63.2406, 63.7944, and 63.12005.
- (32) ASTM D2879–96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, (Approved 1996), IBR approved for §§ 63.111, and 63.12005.
- (33) ASTM D2908–74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved June 27, 1974, IBR approved for § 63.1329(c).
- (34) ASTM D2908–91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).
- (35) ASTM D2908–91(Reapproved 2001), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).
- (36) ASTM D2908–91(Reapproved 2005), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 1, 2005, IBR approved for § 63.1329(c).
- (37) ASTM D2908–91(Reapproved 2011), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved May 1, 2011, IBR approved for § 63.1329(c).
- (38) ASTM D2986–95A, “Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test,” approved September 10, 1995, IBR approved for section 7.1.1 of Method 315 in appendix A to this part.
- (39) ASTM D3173–03 (Reapproved 2008), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, (Approved February 1, 2008), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (40) ASTM D3257–93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).
- (41) ASTM D3370–76, Standard Practices for Sampling Water, Approved August 27, 1976, IBR approved for § 63.1329(c).
- (42) ASTM D3370–95a, Standard Practices for Sampling Water from Closed Conduits, Approved September 10, 1995, IBR approved for § 63.1329(c).
- (43) ASTM D3370–07, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2007, IBR approved for § 63.1329(c).
- (44) ASTM D3370–08, Standard Practices for Sampling Water from Closed Conduits, Approved October 1, 2008, IBR approved for § 63.1329(c).
- (45) ASTM D3370–10, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2010, IBR approved for § 63.1329(c).
- (46) ASTM D3588–98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§ 63.772(h) and 63.1282(g).

- (47) ASTM D3695–88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e).
- (48) ASTM D3792–91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A to subpart II.
- (49) ASTM D3912–80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (50) ASTM D3960–98, Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings, approved November 10, 1998, IBR approved for §§ 63.3360(c) and 63.8055(b).
- (51) ASTM D4006–11, Standard Test Method for Water in Crude Oil by Distillation, including Annex A1 and Appendix X1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (52) ASTM D4017–81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (53) ASTM D4017–90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (54) ASTM D4017–96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (55) ASTM D4057–06 (Reapproved 2011), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, including Annex A1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (56) ASTM D4082–89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (57) ASTM D4084–07, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), (Approved June 1, 2007), IBR approved for table 6 to subpart DDDDD.
- (58) ASTM D4177–95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, including Annexes A1 through A6 and Appendices X1 and X2, (Approved May 1, 2010), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (59) ASTM D4208–02 (Reapproved 2007), Standard Test Method for Total Chlorine in Coal by the Oxygen Bomb Combustion/Ion Selective Electrode Method, approved May 1, 2007, IBR approved for table 6 to subpart DDDDD.
- (60) ASTM D4239–14e1, “Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion,” approved March 1, 2014, IBR approved for § 63.849(f).
- (61) ASTM D4256–89, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (62) ASTM D4256–89 (Reapproved 94), Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (63) ASTM D4282–15, Standard Test Method for Determination of Free Cyanide in Water and Wastewater by Microdiffusion, Approved July 15, 2015, IBR approved for § 63.1103(g).
- (64) ASTM D4606–03 (Reapproved 2007), Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, (Approved October 1, 2007), IBR approved for table 6 to subpart DDDDD.

- (65) ASTM D4809–95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b).
- (66) ASTM D4840–99 (Reapproved 2018)e, Standard Guide for Sampling Chain-of-Custody Procedures, approved August 15, 2018, IBR approved for appendix A to part 63.
- (67) ASTM D4891–89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§ 63.772(h) and 63.1282(g).
- (68) ASTM D5066–91 (Reapproved 2017), Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis, approved June 1, 2017, IBR approved for § 63.3161(g).
- (69) ASTM D5087–02, Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), IBR approved for § 63.3165(e) and appendix A to subpart IIII.
- (70) ASTM D5192–09, Standard Practice for Collection of Coal Samples from Core, (Approved June 1, 2009), IBR approved for table 6 to subpart DDDDD.
- (71) ASTM D5198–09, Standard Practice for Nitric Acid Digestion of Solid Waste, (Approved February 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (72) ASTM D5228–92, Standard Test Method for Determination of Butane Working Capacity of Activated Carbon, (Reapproved 2005), IBR approved for § 63.11092(b).
- (73) ASTM D5291–02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for appendix A to subpart MMMM.
- (74) ASTM D5790–95 (Reapproved 2012), Standard Test Method for Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry, Approved June 15, 2012, IBR approved for § 63.2485(h) and Table 4 to subpart UUUU.
- (75) ASTM D5864–11, Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components, (Approved March 1, 2011), IBR approved for table 6 to subpart DDDDD.
- (76) ASTM D5865–10a, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved May 1, 2010), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (77) ASTM D5954–98 (Reapproved 2006), Test Method for Mercury Sampling and Measurement in Natural Gas by Atomic Absorption Spectroscopy, (Approved December 1, 2006), IBR approved for table 6 to subpart DDDDD.
- (78) ASTM D5965–02 (Reapproved 2013), Standard Test Methods for Specific Gravity of Coating Powders, approved June 1, 2013, IBR approved for §§ 63.3151(b) and 63.3951(c).
- (79) ASTM D6053–00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for appendix A to subpart MMMM.
- (80) ASTM D6093–97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§ 63.3521 and 63.5160(c).
- (81) ASTM D6093–97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, approved December 1, 2016, IBR approved for §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), and 63.4941(b).

(82) ASTM D6196–03 (Reapproved 2009), Standard Practice for Selection of Sorbents, Sampling, and Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air, Approved March 1, 2009, IBR approved for appendix A to this part: Method 325A and Method 325B.

(83) ASTM D6266–00a (Reapproved 2017), Standard Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), approved July 1, 2017, IBR approved for § 63.3165(e).

(84) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities, (Approved August 10, 2003), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(85) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2003, IBR approved for §§ 63.457(b), 63.997(e), and 63.1349, table 4 to subpart DDDD, table 5 to subpart EEEE, table 4 to subpart UUUU, table 4 subpart ZZZZ, and table 8 to subpart HHHHHH.

(86) ASTM D6348–03 (Reapproved 2010), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2010, IBR approved for §§ 63.1571(a), 63.4751(i), 63.4752(e), 63.4766(b), 63.7142(a) and (b), tables 4 and 5 to subpart JJJJJ, tables 4 and 6 to subpart KKKKK, tables 1, 2, and 5 to subpart UUUUU and appendix B to subpart UUUUU.

(87) ASTM D6348–12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012, IBR approved for §§ 63.997(e), 63.1571(a), and 63.2354(b), table 5 to subpart EEEE, table 4 to subpart UUUU, §§ 63.7142(a) and (b) and 63.8000(d), and table 4 to subpart SSSSS.

(88) ASTM D6350–98 (Reapproved 2003), Standard Test Method for Mercury Sampling and Analysis in Natural Gas by Atomic Fluorescence Spectroscopy, (Approved May 10, 2003), IBR approved for table 6 to subpart DDDDD.

(89) ASTM D6357–11, Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, (Approved April 1, 2011), IBR approved for table 6 to subpart DDDDD.

(90) ASTM D6376–10, “Standard Test Method for Determination of Trace Metals in Petroleum Coke by Wavelength Dispersive X-Ray Fluorescence Spectroscopy,” Approved July 1, 2010, IBR approved for § 63.849(f).

(91) [Reserved]

(92) ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§ 63.5799 and 63.5850.

(93) ASTM D6420–99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (Approved October 1, 2004), IBR approved for §§ 63.457(b), 63.772(a), 63.772(e), 63.1282(a) and (d), and table 8 to subpart HHHHHH.

(94) ASTM D6420–99 (Reapproved 2010), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2010, IBR approved for §§ 63.670(j), Table 4 to subpart UUUU, 63.7142(b), and appendix A to this part: Method 325B.

(95) ASTM D6420–18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018, IBR approved for §§ 63.987(b), 63.997(e), and 63.2354(b), table 5 to subpart EEEE, and §§ 63.2450(j) and 63.8000(d).

(96) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 63.9307(c).

(97) ASTM D6522–00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IBR approved for table 4 to subpart ZZZZ, table 5 to subpart DDDDDD, table 4 to subpart JJJJJ, and §§ 63.772(e) and (h)) and 63.1282(d) and (g).

(98) ASTM D6522–11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, Approved December 1, 2011, IBR approved for § 63.1961(a) and table 3 to subpart YYYY.

(99) ASTM D6721–01 (Reapproved 2006), Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, (Approved April 1, 2006), IBR approved for table 6 to subpart DDDDD.

(100) ASTM D6722–01 (Reapproved 2006), Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, (Approved April 1, 2006), IBR approved for Table 6 to subpart DDDDD and Table 5 to subpart JJJJJ.

(101) ASTM D6735–01 (Reapproved 2009), Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, IBR approved for § 63.7142(b), tables 4 and 5 to subpart JJJJJ, and tables 4 and 6 to subpart KKKKK.

(102) ASTM D6751–11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, (Approved July 15, 2011), IBR approved for §§ 63.7575 and 63.11237.

(103) ASTM D6784–02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved April 1, 2008; IBR approved for §§ 63.2465(d); 63.11646(a); 63.11647(a) and (d); tables 1, 2, 5, 11, 12t, and 13 to subpart DDDDD; tables 4 and 5 to subpart JJJJJ; tables 4 and 6 to subpart KKKKK; table 4 to subpart JJJJJ.

(104) ASTM D6784–16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved March 1, 2016; IBR approved for table 5 to subpart UUUUU; appendix A to subpart UUUUU.

(105) ASTM D6883–04, Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles, (Approved June 1, 2004), IBR approved for table 6 to subpart DDDDD.

(106) ASTM D6886–18, Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography, approved October 1, 2018, IBR approved for § 63.2354(c).

(107) ASTM D7237–18, Standard Test Method for Free Cyanide and Aquatic Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection, Approved December 1, 2018, IBR approved for § 63.1103(g).

(108) ASTM D7430–11ae1, Standard Practice for Mechanical Sampling of Coal, (Approved October 1, 2011), IBR approved for table 6 to subpart DDDDD.

(109) ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 63.1625(b); table 3 to subpart LLLLL; 63.7823(c) through (e), 63.7833(g); 63.11423(c).

(110) [Reserved]

(111) ASTM E145–94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for appendix A to subpart PPPP.

(112) ASTM E180–93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(113) ASTM E260–91, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).

(114) ASTM E260–96, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).

(115) ASTM E515–95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for § 63.425(i).

(116) ASTM E711–87 (Reapproved 2004), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, (Approved August 28, 1987), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(117) ASTM E776–87 (Reapproved 2009), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel, (Approved July 1, 2009), IBR approved for table 6 to subpart DDDDD.

(118) ASTM E871–82 (Reapproved 2006), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved November 1, 2006), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(119) ASTM UOP539–12, Refinery Gas Analysis by GC, Copyright 2012 (to UOP), IBR approved for § 63.670(j).

(j) Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, <http://www.arb.ca.gov/DRDB/BA/CURHTML/ST/st30.pdf>.

(1) “BAAQMD Source Test Procedure ST–30—Static Pressure Integrity Test, Underground Storage Tanks,” adopted November 30, 1983, and amended December 21, 1994, IBR approved for § 63.11120(a).

(2) [Reserved]

(k) British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.

(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing—Bubble Emission Techniques, IBR approved for § 63.425(i).

(2) BS EN 14662–4:2005, Ambient air quality standard method for the measurement of benzene concentrations—Part 4: Diffusive sampling followed by thermal desorption and gas chromatography, Published June 27, 2005, IBR approved for appendix A to this part: Method 325A and Method 325B.

(l) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812–2815, Telephone (916) 327–0900, <http://www.arb.ca.gov/>.

(1) Method 310, “Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds (ROC) in Aerosol Coating Products,” amended May 25, 2018, IBR approved for § 63.8055(b).

(2) Method 428, “Determination Of Polychlorinated Dibenzo-P-Dioxin (PCDD), Polychlorinated Dibenzofuran (PCDF), and Polychlorinated Biphenyle Emissions from Stationary Sources,” amended September 12, 1990, IBR approved for § 63.849(a)(13) and (14).

(3) Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources, Adopted September 12, 1989, Amended July 28, 1997, IBR approved for § 63.1625(b).

(4) California Air Resources Board Vapor Recovery Test Procedure TP-201.1—"Volumetric Efficiency for Phase I Vapor Recovery Systems," adopted April 12, 1996, and amended February 1, 2001 and October 8, 2003, IBR approved for § 63.11120(b).

(5) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E—"Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves," adopted October 8, 2003, IBR approved for § 63.11120(a).

(6) California Air Resources Board Vapor Recovery Test Procedure TP-201.3—"Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities," adopted April 12, 1996 and amended March 17, 1999, IBR approved for § 63.11120(a).

(m) Composite Panel Association, 19465 Deerfield Avenue, Suite 306, Leesburg, VA 20176, Telephone (703)724-1128, and www.compositepanel.org.

(1) ANSI A135.4-2012, Basic Hardboard, approved June 8, 2012, IBR approved for § 63.4781.

(2) [Reserved]

(n) Environmental Protection Agency. Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue NW., Washington, DC 20460, telephone number (202) 566-1745.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program*, November 16, 2010, IBR approved for § 63.99(a).

(2) *New Jersey's Toxic Catastrophe Prevention Act Program*, (July 20, 1998), IBR approved for § 63.99(a).

(3) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a).

(4) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a).

(5) Massachusetts Department of Environmental Protection regulations at 310 CMR 7.26(10)-(16), Air Pollution Control, effective as of September 5, 2008, corrected March 6, 2009, and 310 CMR 70.00, Environmental Results Program Certification, effective as of December 28, 2007. IBR approved for § 63.99(a).

(6)

(i) New Hampshire Regulations at Env-Sw 2100, Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (including a letter from Thomas S. Burack, Commissioner, Department of Environmental Services, State of New Hampshire, to Carol J. Holahan, Director, Office of Legislative Services, dated February 12, 2010, certifying that the enclosed rule, Env-Sw 2100, is the official version of this rule), IBR approved for § 63.99(a).

(ii) New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 (certified with June 23, 2017 letter from Clark B. Freise, Assistant Commissioner, Department of Environmental Services, State of New Hampshire), as follows: Revision Notes #1 and #2; Part Env-A 1801-1807, excluding Env-A 1801.02(e), Env-A 1801.07, Env-A 1802.02, Env-A 1802.04, Env-A 1802.07-1802.09, Env-A 1802.13, Env-A 1802.15-1802.17, Env-A 1802.25, Env-A 1802.31, Env-A 1802.37, Env-A 1802.40, Env-A 1802.44, and Env-A 1803.05-1803.09; and Appendices B, C, and D; IBR approved for § 63.99(a).

(7) Maine Department of Environmental Protection regulations at Chapter 125, Perchloroethylene Dry Cleaner Regulation, effective as of June 2, 1991, last amended on June 24, 2009. IBR approved for § 63.99(a).

(8) California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989," IBR approved for §§ 63.11173(e) and 63.11516(d).

(9) California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002," Revision 0, IBR approved for §§ 63.11173(e) and 63.11516(d).

(10) Rhode Island Department of Environmental Management regulations at Air Pollution Control Regulation No. 36, Control of Emissions from Organic Solvent Cleaning, effective April 8, 1996, last amended October 9, 2008, IBR approved for § 63.99(a).

(11) Rhode Island Air Pollution Control, General Definitions Regulation, effective July 19, 2007, last amended October 9, 2008. IBR approved for § 63.99(a).

(12) Alaska Statute 42.45.045. Renewable energy grant fund and recommendation program, available at <http://www.legis.state.ak.us/basis/folio.asp>, IBR approved for § 63.6675.

(13) Vermont Air Pollution Control Regulations, Chapter 5, Air Pollution Control, section 5–253.11, Perchloroethylene Dry Cleaning, effective as of December 15, 2016. Incorporation by reference approved for § 63.99(a).

(o) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272–0167, <http://www.epa.gov>.

(1) EPA–453/R–08–002, Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat, published September 2008, IBR approved for §§ 63.3130(c), 63.3161(d) and (g), 63.3165(e), and appendix A to subpart IIII.

(2) EPA–453/R–01–005, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards, Final Report, January 2001, IBR approved for § 63.7491(g).

(3) [Reserved]

(4) EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=2000D5T6.PDF>; IBR approved for §§ 63.548(e); 63.864(e); 63.7525(j); 63.8450(e); 63.8600(e); 63.9632(a); 63.9804(f); 63.11224(f); 63.11423(e).

(5) EPA–454/R–99–005, Office of Air Quality Planning and Standards (OAQPS), Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000, IBR approved for appendix A to this part: Method 325A.

(6) EPA/600/R–12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for § 63.2163(b).

(7) EPA–625/3–89–016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and –Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989. IBR approved for § 63.1513(d).

(8) SW–846–0011, Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources, Revision 0, December 1996, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 4 to subpart DDDD.

(9) SW–846–3020A, Acid Digestion of Aqueous Samples And Extracts For Total Metals For Analysis By GFAA Spectroscopy, Revision 1, July 1992, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

- (10) SW-846-3050B, Acid Digestion of Sediments, Sludges, and Soils, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (11) SW-846-5030B, Purge-And-Trap For Aqueous Samples, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (12) SW-846-5031, Volatile, Nonpurgeable, Water-Soluble Compounds by Azeotropic Distillation, Revision 0, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (13) SW-846-7470A, Mercury In Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (14) SW-846-7471B, Mercury In Solid Or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (15) SW-846-8015C, Nonhalogenated Organics by Gas Chromatography, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (16) SW-846-8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (17) SW-846-8260D, Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry, Revision 4, June 2018, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (18) SW-846-8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (19) SW-846-8315A, Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC), Revision 1, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960 and 63.11980, and table 10 to subpart HHHHHH.
- (20) SW-846-5050, Bomb Preparation Method for Solid Waste, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition IBR approved for table 6 to subpart DDDDD.
- (21) SW-846-6010C, Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (22) SW-846-6020A, Inductively Coupled Plasma-Mass Spectrometry, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(23) SW-846-7060A, Arsenic (Atomic Absorption, Furnace Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(24) SW-846-7740, Selenium (Atomic Absorption, Furnace Technique), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(25) SW-846-9056, Determination of Inorganic Anions by Ion Chromatography, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(26) SW-846-9076, Test Method for Total Chlorine in New and Used Petroleum Products by Oxidative Combustion and Microcoulometry, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(27) SW-846-9250, Chloride (Colorimetric, Automated Ferricyanide AAI), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(28) Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma—Mass Spectrometry, Revision 5.4, 1994, IBR approved for table 6 to subpart DDDDD.

(29) Method 1631 Revision E, Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Absorption Fluorescence Spectrometry, Revision E, EPA-821-R-02-019, August 2002, IBR approved for table 6 to subpart DDDDD.

(p) International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(1) ISO 6978-1:2003(E), Natural Gas—Determination of Mercury—Part 1: Sampling of Mercury by Chemisorption on Iodine, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(2) ISO 6978-2:2003(E), Natural gas—Determination of Mercury—Part 2: Sampling of Mercury by Amalgamation on Gold/Platinum Alloy, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(3) ISO 16017-2:2003(E): Indoor, ambient and workplace air—sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography—Part 2: Diffusive sampling, May 15, 2003, IBR approved for appendix A to this part: Method 325A and Method 325B.

(q) National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P.O. Box 133318, Research Triangle Park, NC 27709-3318 or at <http://www.ncasi.org>.

(1) NCASI Method DI/MEOH-94.03, Methanol in Process Liquids and Wastewaters by GC/FID, Issued May 2000, IBR approved for §§ 63.457 and 63.459.

(2) NCASI Method CI/WP-98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, IBR approved for table 4 to subpart DDDD.

(3) NCASI Method DI/HAPS-99.01, Selected HAPs In Condensates by GC/FID, Issued February 2000, IBR approved for § 63.459(b).

(4) NCASI Method IM/CAN/WP-99.02, Impinger/Canister Source Sampling Method for Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, IBR approved for table 4 to subpart DDDD.

(5) NCASI Method ISS/FP A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, IBR approved for table 4 to subpart DDDD and §§ 63.4751(i) and 63.4752(e).

(r) National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605–6000 or (800) 553–6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800.

(1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e).

(2) “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846, Third Edition. (A suffix of “A” in the method number indicates revision one (the method has been revised once). A suffix of “B” in the method number indicates revision two (the method has been revised twice).

(i) Method 0023A, “Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources,” Revision 2, dated August 2018, IBR approved for § 63.1208(b).

(ii) Method 9071B, “n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples,” dated April 1998, IBR approved for § 63.7824(e).

(iii) Method 9095A, “Paint Filter Liquids Test,” dated December 1996, IBR approved for §§ 63.7700(b) and 63.7765.

(iv) Method 9095B, “Paint Filter Liquids Test,” (revision 2), dated November 2004, IBR approved for the definition of “Free organic liquids” in §§ 63.10692, 63.10885(a), and the definition of “Free liquids” in § 63.10906.

(v) SW–846 74741B, Revision 2, “Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique),” February 2007, IBR approved for § 63.11647(f).

(3) National Institute of Occupational Safety and Health (NIOSH) test method compendium, “NIOSH Manual of Analytical Methods,” NIOSH publication no. 94–113, Fourth Edition, August 15, 1994.

(i) NIOSH Method 2010, “Amines, Aliphatic,” Issue 2, August 15, 1994, IBR approved for § 63.7732(g).

(ii) [Reserved]

(s) North American Electric Reliability Corporation, 1325 G Street, NW., Suite 600, Washington, DC 20005–3801, <http://www.nerc.com>, http://www.nerc.com/files/EOP0002-3_1.pdf.

(1) North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergencies, adopted August 5, 2010, IBR approved for § 63.6640(f).

(2) [Reserved]

(t) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, (800) 332–8686, <http://www.tappi.org>.

(1) TAPPI T 266, Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy (Reaffirmation of T 266 om-02), Draft No. 2, July 2006, IBR approved for table 6 to subpart DDDD.

(2) [Reserved]

(u) Texas Commission on Environmental Quality (TCEQ) Library, Post Office Box 13087, Austin, Texas 78711–3087, telephone number (512) 239–0028,
http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/02046sipapp_ado.pdf.

(1) “Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources,” Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, January 31, 2003, IBR approved for §§ 63.654(c) and (g), 63.655(i), 63.1086(e), 63.1089, 63.2490(d), 63.2525(r), and 63.11920.

(2) [Reserved]

Editorial Note

Editorial Note: For Federal Register citations affecting § 63.14, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information.*

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

§ 63.16 Performance Track Provisions.

(a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.

(b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:

(1) Reduced its total HAP emissions to less than 25 tons per year;

(2) Reduced its emissions of each individual HAP to less than 10 tons per year; and

(3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.

(c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:

- (1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
- (2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
- (3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
- (4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

Table 1 to Subpart A of Part 63 - Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^a When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table, in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

Appendix E. 40 CFR Part 63, Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards

§63.1019 Applicability.

- (a) The provisions of this subpart apply to the control of air emissions from equipment leaks for which another subpart references the use of this subpart for such air emission control. These air emission standards for equipment leaks are placed here for administrative convenience and only apply to those owners and operators of facilities subject to a referencing subpart. The provisions of 40 CFR part 63, subpart A (General Provisions) do not apply to this subpart except as noted in the referencing subpart.
- (b) *Equipment subject to this subpart.* The provisions of this subpart and the referencing subpart apply to equipment that contains or contacts regulated material. This subpart applies to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and closed vent systems and control devices used to meet the requirements of this subpart.
- (c) *Equipment in vacuum service.* Equipment in vacuum service is excluded from the requirements of this subpart.
- (d) *Equipment in service less than 300 hours per calendar year.* Equipment intended to be in regulated material service less than 300 hours per calendar year is excluded from the requirements of §§63.1025 through 63.1034 and §63.1036 if it is identified as required in §63.1022(b)(5).
- (e) *Lines and equipment not containing process fluids.* Lines and equipment not containing process fluids are not subject to the provisions of this subpart. Utilities, and other non-process lines, such as heating and cooling systems that do not combine their materials with those in the processes they serve, are not considered to be part of a process unit or affected facility.
- (f) *Implementation and enforcement.* This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State, local, or tribal agency. If the EPA

Administrator has delegated authority to a State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(1) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraphs (f)(i) through (v) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(i) Approval of alternatives to the nonopacity emissions standards in §§63.1022 through 62.1034, under §63.6(g), and the standards for quality improvement programs in §63.1035. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(ii) [Reserved]

(iii) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(iv) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(v) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§63.1020 Definitions.

All terms used in this part shall have the meaning given them in the Act and in this section.

Batch process means a process in which the equipment is fed intermittently or discontinuously. Processing then occurs in this equipment after which the equipment is generally emptied. Examples of industries that use batch processes include pharmaceutical production and pesticide production.

Batch product-process equipment train means the collection of equipment (e.g., connectors, reactors, valves, pumps, etc.) configured to produce a specific product or intermediate by a batch process.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Closed-loop system means an enclosed system that returns process fluid to the process and is not vented directly to the atmosphere.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers must be covered or closed when not being filled or emptied.

Closed-vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic emissions.

Connector means flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are not inaccessible, ceramic, or ceramic-lined (e.g., porcelain, glass, or glass-lined) as described in §63.1027(e)(2).

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this part. Such equipment or devices include, but are not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. Primary condensers on steam strippers or fuel gas systems are not considered control devices.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in regulated material service; and any control devices or systems used to comply with this subpart.

First attempt at repair, for the purposes of this subpart, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in §§63.1023(b) and (c) of this subpart in to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use a fuel gas in combustion equipment, such as furnaces and gas turbines, either singly or in combination.

In food and medical service means that a piece of equipment in regulated material service contacts a process stream used to manufacture a Food and Drug Administration regulated product where leakage of a barrier fluid into the process stream would cause any of the following:

- (1) A dilution of product quality so that the product would not meet written specifications,
- (2) An exothermic reaction which is a safety hazard,
- (3) The intended reaction to be slowed down or stopped, or
- (4) An undesired side reaction to occur.

In gas and vapor service means that a piece of equipment in regulated material service contains a gas or vapor at operating conditions.

In heavy liquid service means that a piece of equipment in regulated material service is not in gas and vapor service or in light liquid service.

In light liquid service means that a piece of equipment in regulated material service contains a liquid that meets the following conditions:

- (1) The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 °C,
- (2) The total concentration of the pure organic compounds constituents having a vapor pressure greater than 0.3 kilopascals at 20 °C is equal to or greater than 20 percent by weight of the total process stream, and
- (3) The fluid is a liquid at operating conditions.

(Note to definition of "in light liquid service": Vapor pressures may be determined by standard reference texts or ASTM D-2879.)

In liquid service means that a piece of equipment in regulated material service is not in gas and vapor service.

In organic hazardous air pollutant or in organic HAP service means that piece of equipment either contains or contracts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP's as determined according to the provisions of §63.180(d) of subpart H. The provisions of §63.180(d) of subpart H also specify how to determine that a piece of equipment is not in organic HAP service.

In regulated material service means, for the purposes of this subpart, equipment which meets the definition of "in VOC service," "in VHAP service," "in organic hazardous air pollutant service," or "in" other chemicals or groups of chemicals "service" as defined in the referencing subpart.

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals below ambient pressure.

Initial startup means for new sources, the first time the source begins production. For additions or changes not defined as a new source by this subpart, initial startup means the first time additional or changed equipment is put into operation. Initial startup does not include operation solely for testing of equipment. Initial startup does not include subsequent startup of process units following malfunction or process unit shutdowns. Except for equipment leaks, initial startup also does not include subsequent startups (of process units following changes in product for flexible operation units or following recharging of equipment in batch unit operations).

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 1.27 centimeters (0.5 inches) and smaller, and connectors nominally 1.91 centimeters (0.75 inches) and smaller in diameter are considered instrumentation systems for the purposes of this subpart. Valves greater than nominally 1.27 centimeters (0.5 inches) and connectors greater than nominally 1.91 centimeters (0.75 inches) associated with instrumentation systems are not considered part of instrumentation systems and must be monitored individually.

Liquids dripping means any visible leakage from the seal including dripping, spraying, misting, clouding, and ice formation. Indications of liquids dripping include puddling or new stains that are indicative of an existing evaporated drip.

Nonrepairable means that it is technically infeasible to repair a piece of equipment from which a leak has been detected without a process unit or affected facility shutdown.

Open-ended valve or line means any valve, except relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.

Organic monitoring device means a unit of equipment used to indicate the concentration level of organic compounds based on a detection principle such as infra-red, photoionization, or thermal conductivity.

Polymerizing monomer means a compound which may form polymer buildup in pump mechanical seals resulting in rapid mechanical seal failure.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the relief device. This release can be one release or a series of releases over a short time period due to a malfunction in the process.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded

pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Process unit means the equipment specified in the definitions of process unit in the applicable referencing subpart. If the referencing subpart does not define process unit, then for the purposes of this part, process unit means the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit, or part of a process unit during which it is technically feasible to clear process material from a process unit, or part of a process unit, consistent with safety constraints and during which repairs can be affected. The following are not considered process unit shutdowns:

- (1) An unscheduled work practice or operations procedure that stops production from a process unit, or part of a process unit, for less than 24 hours.
- (2) An unscheduled work practice or operations procedure that would stop production from a process unit, or part of a process unit, for a shorter period of time than would be required to clear the process unit, or part of the process unit, of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.
- (3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

Referencing subpart means the subpart that refers an owner or operator to this subpart.

Regulated material, for purposes of this part, refers to gas from volatile organic liquids (VOL), volatile organic compounds (VOC), hazardous air pollutants (HAP), or other chemicals or groups of chemicals that are regulated by the referencing subpart.

Regulated source for the purposes of this part, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a referencing subpart.

Relief device or valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Repaired, for the purposes of this subpart, means that equipment is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of this subpart and unless otherwise specified in applicable provisions of this subpart, is monitored as specified in §§63.1023(b) and (c) to verify that emissions from the equipment are below the applicable leak definition.

Routed to a process or route to a process means the emissions are conveyed to any enclosed portion of a process unit where the emissions are predominantly recycled and/or consumed in the same manner as a material that fulfills the same function in the process and/or transformed by chemical reaction into materials that are not regulated materials and/or incorporated into a product; and/or recovered.

Sampling connection system means an assembly of equipment within a process unit or affected facility used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Screwed (threaded) connector means a threaded pipe fitting where the threads are cut on the pipe wall and the fitting requires only two pieces to make the connection (i.e., the pipe and the fitting).

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Set pressure means for the purposes of this subpart, the pressure at which a properly operating pressure relief device begins to open to relieve atypical process system operating pressure.

Start-up means the setting into operation of a piece of equipment or a control device that is subject to this subpart.

§63.1021 Alternative means of emission limitation.

(a) *Performance standard exemption.* The provisions of paragraph (b) of this section do not apply to the performance standards of §63.1030(b) for pressure relief devices or §63.1031(f) for compressors operating under the alternative compressor standard.

(b) *Requests by owners or operators.* An owner or operator may request a determination of alternative means of emission limitation to the requirements of §§63.1025 through 63.1034 as provided in paragraph (d) of this section. If the Administrator makes a determination that a means of emission limitation is a permissible alternative, the owner or operator shall either comply with the alternative or comply with the requirements of §§63.1025 through 63.1034.

(c) *Requests by manufacturers of equipment.*

(1) Manufacturers of equipment used to control equipment leaks of the regulated material may apply to the Administrator for permission for an alternative means of emission limitation that achieves a reduction in emissions of the regulated material achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will grant permission according to the provisions of paragraph (d) of this section.

(d) *Permission to use an alternative means of emission limitation.* Permission to use an alternative means of emission limitation shall be governed by the procedures in paragraphs (d)(1) through (d)(4) of this section.

(1) Where the standard is an equipment, design, or operational requirement, the requirements of paragraphs (d)(1)(i) through (d)(1)(iii) of this section apply.

(i) Each owner or operator applying for permission to use an alternative means of emission limitation shall be responsible for collecting and verifying emission performance test data for an alternative means of emission limitation.

(ii) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(iii) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve at least the same emission reduction as the equipment, design, and operational requirements of this subpart.

(2) Where the standard is a work practice, the requirements of paragraphs (d)(2)(i) through (d)(2)(vi) of this section apply.

(i) Each owner or operator applying for permission to use an alternative means of emission limitation shall be responsible for collecting and verifying test data for the alternative.

(ii) For each kind of equipment for which permission is requested, the emission reduction achieved by the required work practices shall be demonstrated for a minimum period of 12 months.

(iii) For each kind of equipment for which permission is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated.

(iv) Each owner or operator applying for such permission shall commit, in writing, for each kind of equipment to work practices that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practices.

(v) The Administrator will compare the demonstrated emission reduction for the alternative means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (d)(2)(iv) of this section.

(vi) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same or greater emission reduction as the required work practices of this subpart.

(3) An owner or operator may offer a unique approach to demonstrate the alternative means of emission limitation.

(4) If, in the judgement of the Administrator, an alternative means of emission limitation will be approved, the Administrator will publish a notice of the determination in the Federal Register using the procedures specified in the referencing subpart.

§63.1022 Equipment identification.

(a) *General equipment identification.* Equipment subject to this subpart shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods.

(b) *Additional equipment identification.* In addition to the general identification required by paragraph (a) of this section, equipment subject to any of the provisions in §§63.1023 through 63.1034 shall be specifically identified as required in paragraphs (b)(1) through (b)(5) of this section, as applicable. This paragraph does not apply to an owner or operator of a batch product process who elects to pressure test the batch product process equipment train pursuant to §63.1036.

(1) *Connectors.* Except for inaccessible, ceramic, or ceramic-lined connectors meeting the provision of §63.1027(e)(2) and instrumentation systems identified pursuant to paragraph (b)(4) of this section, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the identification shall be complete no later than the completion of the initial survey required by paragraph (a) of this section.

(2) *Routed to a process or fuel gas system or equipped with a closed vent system and control device.* Identify the equipment that the owner or operator elects to route to a process or fuel gas system or equip with a closed vent system and control device, under the provisions of §63.1026(e)(3) (pumps in light liquid service), §63.1028(e)(3) (agitators), §63.1030(d) (pressure relief devices in gas and vapor service), §63.1031(e) (compressors), or §63.1037(a) (alternative means of emission limitation for enclosed-vented process units).

(3) *Pressure relief devices.* Identify the pressure relief devices equipped with rupture disks, under the provisions of §63.1030(e).

(4) *Instrumentation systems.* Identify instrumentation systems subject to the provisions of §63.1029 of this subpart. Individual components in an instrumentation system need not be identified.

(5) *Equipment in service less than 300 hours per calendar year.* The identity, either by list, location (area or group), or other method, of equipment in regulated material service less than 300 hours per calendar year within a process unit or affected facilities subject to the provisions of this subpart shall be recorded.

(c) *Special equipment designations: Equipment that is unsafe or difficult-to-monitor—*

(1) *Designation and criteria for unsafe-to-monitor.* Valves meeting the provisions of §63.1025(e)(1), pumps meeting the provisions of §63.1026(e)(6), connectors meeting the provisions of §63.1027(e)(1), and agitators meeting the provisions of §63.1028(e)(7) may be designated unsafe-to-monitor if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of this subpart. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat.

(2) *Designation and criteria for difficult-to-monitor.* Valves meeting the provisions of §63.1025(e)(2) may be designated difficult-to-monitor if the provisions of paragraph (c)(2)(i) apply. Agitators meeting the provisions of §63.1028(e)(5) may be designated difficult-to-monitor if the provisions of paragraph (c)(2)(ii) apply.

(i) *Valves.*

(A) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service; and

(B) The process unit or affected facility within which the valve is located is an existing source, or the owner or operator designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor.

(ii) *Agitators.* The owner or operator determines that the agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service.

(3) *Identification of unsafe or difficult-to-monitor equipment.* The owner or operator shall record the identity of equipment designated as unsafe-to-monitor according to the provisions of paragraph (c)(1) of this section and the planned schedule for monitoring this equipment. The owner or operator shall record the identity of equipment designated as difficult-to-monitor according to the provisions of paragraph (c)(2) of this section, the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector.

(4) *Written plan requirements.*

(i) The owner or operator of equipment designated as unsafe-to-monitor according to the provisions of paragraph (c)(1) of this section shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in §63.1024 if a leak is detected.

(ii) The owner or operator of equipment designated as difficult-to-monitor according to the provisions of paragraph (c)(2) of this section shall have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in §63.1024 if a leak is detected.

(d) *Special equipment designations: Equipment that is unsafe-to-repair—*

(1) *Designation and criteria.* Connectors subject to the provisions of §63.1024(e) may be designated unsafe-to-repair if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements of this subpart, and if the connector will be repaired before the end of the next process unit or affected facility shutdown as specified in §63.1024(e)(2).

(2) *Identification of equipment.* The identity of connectors designated as unsafe-to-repair and an explanation why the connector is unsafe-to-repair shall be recorded.

(e) *Special equipment designations: Compressors operating with an instrument reading of less than 500 parts per million above background.* Identify the compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of §63.1031(f).

(f) *Special equipment designations: Equipment in heavy liquid service.* The owner or operator of equipment in heavy liquid service shall comply with the requirements of either paragraph (f)(1) or (f)(2) of this section, as provided in paragraph (f)(3) of this section.

(1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.

(2) When requested by the Administrator, demonstrate that the piece of equipment or process is in heavy liquid service.

(3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

§63.1023 Instrument and sensory monitoring for leaks.

(a) *Monitoring for leaks.* The owner or operator of a regulated source subject to this subpart shall monitor regulated equipment as specified in paragraph (a)(1) of this section for instrument monitoring and paragraph (a)(2) of this section for sensory monitoring.

(1) *Instrument monitoring for leaks.*

(i) Valves in gas and vapor service and in light liquid service shall be monitored pursuant to §63.1025(b).

(ii) Pumps in light liquid service shall be monitored pursuant to §63.1026(b).

(iii) Connectors in gas and vapor service and in light liquid service shall be monitored pursuant to §63.1027(b).

(iv) Agitators in gas and vapor service and in light liquid service shall be monitored pursuant to §63.1028(c).

(v) Pressure relief devices in gas and vapor service shall be monitored pursuant to §63.1030(c).

(vi) Compressors designated to operate with an instrument reading less than 500 parts per million above background, as described in §63.1022(e), shall be monitored pursuant to §63.1031(f).

(2) *Sensory monitoring for leaks.*

(i) Pumps in light liquid service shall be observed pursuant to §§63.1026(b)(4) and (e)(1)(v).

(ii) [Reserved]

(iii) Agitators in gas and vapor service and in light liquid service shall be observed pursuant to §63.1028(c)(3) or (e)(1)(iv).

(iv) [Reserved]

(b) *Instrument monitoring methods.* Instrument monitoring, as required under this subpart, shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

(1) *Monitoring method.* Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A, except as otherwise provided in this section.

(2) *Detection instrument performance criteria.*

(i) Except as provided for in paragraph (b)(2)(ii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2, paragraph (a) of Method 21 shall be for the representative composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, air, water or other inerts that are not HAP or VOC, the representative stream response factor shall be determined on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

(ii) If there is no instrument commercially available that will meet the performance criteria specified in paragraph (b)(2)(i) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in paragraph (b)(2)(i) of this section.

(3) *Detection instrument calibration procedure.* The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(4) *Detection instrument calibration gas.* Calibration gases shall be zero air (less than 10 parts per million of hydrocarbon in air); and the gases specified in paragraph (b)(4)(i) of this section except as provided in paragraph (b)(4)(ii) of this section.

(i) Mixtures of methane in air at a concentration no more than 2,000 parts per million greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(ii) A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (b)(2)(i) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(5) *Monitoring performance.* Monitoring shall be performed when the equipment is in regulated material service or is in use with any other detectable material.

(6) *Monitoring data.* Monitoring data obtained prior to the regulated source becoming subject to the referencing subpart that do not meet the criteria specified in paragraphs (b)(1) through (b)(5) of this section may still be used to qualify initially for less frequent monitoring under the provisions in §63.1025(a)(2), (b)(3) or (b)(4) for valves or §63.1027(b)(3) for connectors provided the departures from the criteria or from the specified monitoring frequency of §63.1025(b)(3) or (b)(4) or §63.1027(b)(3) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2, paragraph (a) of Method 21 of appendix A of 40 CFR part 60 instead of paragraph (b)(2) of this section, or monitoring using a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in this subpart. Failure to use a calibrated instrument is not considered a minor departure.

(c) *Instrument monitoring using background adjustments.* The owner or operator may elect to adjust or not to adjust the instrument readings for background. If an owner or operator elects not to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (b)(1) through (b)(5) of this section. In such cases, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with §63.1030(b) (pressure relief devices) or §63.1031(f) (alternative compressor standard). If an owner or operator elects to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (c)(1) through (c)(4) of this section.

(1) The requirements of paragraphs (b)(1) through (b)(5) of this section shall apply.

(2) The background level shall be determined, using the procedures in Method 21 of 40 CFR part 60, appendix A.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with §63.1030(b) (pressure relief devices) or §63.1031(f) (alternative compressor standard).

(d) *Sensory monitoring methods.* Sensory monitoring consists of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere.

(e) *Leaking equipment identification and records.*

(1) When each leak is detected pursuant to the monitoring specified in paragraph (a) of this section, a weatherproof and readily visible identification, shall be attached to the leaking equipment.

(2) When each leak is detected, the information specified in §63.1024(f) shall be recorded and kept pursuant to the referencing subpart, except for the information for connectors complying with the 8 year monitoring period allowed under §63.1027(b)(3)(iii) shall be kept 5 years beyond the date of its last use.

§63.1024 Leak repair.

(a) *Leak repair schedule.* The owner or operator shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as provided in paragraphs (d) and (e) of this section. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

(b) [Reserved]

(c) *Leak identification removal—*

(1) *Valves and connectors in gas/vapor and light liquid service.* The leak identification on a valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in §63.1025(d)(2), and no leak has been detected during that monitoring. The leak identification on a connector in gas/vapor or light liquid service may be removed after it has been monitored as specified in §63.1027(b)(3)(iv) and no leak has been detected during that monitoring.

(2) *Other equipment.* The identification that has been placed, pursuant to §63.1023(e)(1), on equipment determined to have a leak, except for a valve or for a connector in gas/vapor or light liquid service that is subject to the provisions of §63.1027(b)(3)(iv), may be removed after it is repaired.

(d) *Delay of repair.* Delay of repair is allowed for any of the conditions specified in paragraphs (d)(1) through (d)(5) of this section. The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

(1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in paragraph (d)(5) of this section.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

(3) Delay of repair for valves, connectors, and agitators is also allowed if the provisions of paragraphs (d)(3)(i) and (d)(3)(ii) of this section are met.

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(ii) When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either §63.1034 or §63.1021(b) of this part.

(4) Delay of repair for pumps is also allowed if the provisions of paragraphs (d)(4)(i) and (d)(4)(ii) of this section are met.

(i) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of §63.1035(d) will provide better performance or one of the specifications of paragraphs (d)(4)(i)(A) through (d)(4)(i)(C) of this section are met.

(A) A dual mechanical seal system that meets the requirements of §63.1026(e)(1) will be installed;

(B) A pump that meets the requirements of §63.1026(e)(2) will be installed; or

(C) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of §63.1026(e)(3) will be installed; and

(ii) Repair is completed as soon as practical, but not later than 6 months after the leak was detected.

(5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

(e) *Unsafe-to-repair—connectors.* Any connector that is designated, as described in §63.1022(d), as an unsafe-to-repair connector is exempt from the requirements of §63.1027(d), and paragraph (a) of this section.

(f) *Leak repair records.* For each leak detected, the information specified in paragraphs (f)(1) through (f)(5) of this section shall be recorded and maintained pursuant to the referencing subpart.

(1) The date of first attempt to repair the leak.

(2) The date of successful repair of the leak.

(3) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A at the time the leak is successfully repaired or determined to be nonreparable.

(4) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified in paragraphs (f)(4)(i) and (f)(4)(ii) of this section.

(i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(5) Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

§63.1025 Valves in gas and vapor service and in light liquid service standards.

(a) Compliance schedule.

(1) The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(2) The use of monitoring data generated before the regulated source became subject to the referencing subpart to qualify initially for less frequent monitoring is governed by the provisions of §63.1023(b)(6).

(b) Leak detection. Unless otherwise specified in §63.1021(b) or paragraph (e) of this section, or the referencing subpart, the owner or operator shall monitor all valves at the intervals specified in paragraphs (b)(3) and/or (b)(4) of this section and shall comply with all other provisions of this section.

(1) *Monitoring method.* The valves shall be monitored to detect leaks by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(2) *Instrument reading that defines a leak.* The instrument reading that defines a leak is 500 parts per million or greater.

(3) *Monitoring frequency.* The owner or operator shall monitor valves for leaks at the intervals specified in paragraphs (b)(3)(i) through (b)(3)(v) of this section and shall keep the record specified in paragraph (b)(3)(vi) of this section.

(i) If at least the greater of 2 valves or 2 percent of the valves in a process unit leak, as calculated according to paragraph (c) of this section, the owner or operator shall monitor each valve once per month.

(ii) At process units with less than the greater of 2 leaking valves or 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in paragraphs (b)(3)(iii) through (b)(3)(v) of this section. Monitoring data generated before the regulated source became subject to the referencing subpart and meeting the criteria of either §63.1023(b)(1) through (b)(5), or §63.1023(b)(6), may be used to qualify initially for less frequent monitoring under paragraphs (b)(3)(iii) through (b)(3)(v) of this section.

(iii) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every two quarters

(iv) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every four quarters.

(v) At process units with less than 0.25 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 years.

(vi) The owner or operator shall keep a record of the monitoring schedule for each process unit.

(4) *Valve subgrouping.* For a process unit or a group of process units to which this subpart applies, an owner or operator may choose to subdivide the valves in the applicable process unit or group of process units and apply the provisions of paragraph (b)(3) of this section to each subgroup. If the owner or operator elects to subdivide the valves in the applicable process unit or group of process units, then the provisions of paragraphs (b)(4)(i) through (b)(4)(viii) of this section apply.

(i) The overall performance of total valves in the applicable process unit or group of process units to be subdivided shall be less than 2 percent leaking valves, as detected according to paragraphs (b)(1) and (b)(2) of this section and as calculated according to paragraphs (c)(1)(ii) and (c)(2) of this section.

(ii) The initial assignment or subsequent reassignment of valves to subgroups shall be governed by the provisions of paragraphs (b)(4)(ii)(A) through (b)(4)(ii)(C) of this section.

(A) The owner or operator shall determine which valves are assigned to each subgroup. Valves with less than one year of monitoring data or valves not monitored within the last twelve months must be placed initially into the most frequently monitored subgroup until at least one year of monitoring data have been obtained.

(B) Any valve or group of valves can be reassigned from a less frequently monitored subgroup to a more frequently monitored subgroup provided that the valves to be reassigned were monitored during the most recent monitoring period for the less frequently monitored subgroup. The monitoring results must be included with that less frequently monitored subgroup's associated percent leaking valves calculation for that monitoring event.

(C) Any valve or group of valves can be reassigned from a more frequently monitored subgroup to a less frequently monitored subgroup provided that the valves to be reassigned have not leaked for the period of the less frequently monitored subgroup (e.g., for the last 12 months, if the valve or group of valves is to be reassigned to a subgroup being monitored annually). Nonrepairable valves may not be reassigned to a less frequently monitored subgroup.

(iii) The owner or operator shall determine every 6 months if the overall performance of total valves in the applicable process unit or group of process units is less than 2 percent leaking valves and so indicate the performance in the next Periodic Report. If the overall performance of total valves in the applicable process unit or group of process units is 2 percent leaking valves or greater, the owner or operator shall no longer subgroup and shall revert to the program required in paragraphs (b)(1) through (b)(3) of this section for that applicable process unit or group of process units. An owner or operator can again elect to comply with the valve subgrouping procedures of paragraph (b)(4) of this section if future overall performance of total valves in the process unit or group of process units is again less than 2 percent. The overall performance of total valves in the applicable process unit or group of process units shall be calculated as a weighted average of the percent leaking valves of each subgroup according to Equation number 1:

$$\%V_{LO} = \frac{\sum_{i=1}^n (\%V_{Li} \times V_i)}{\sum_{i=1}^n V_i} \quad [\text{Eq. 1}]$$

where:

$\%V_{LO}$ = Overall performance of total valves in the applicable process unit or group of process units

$\%V_{Li}$ = Percent leaking valves in subgroup i, most recent value calculated according to the procedures in paragraphs (c)(1)(ii) and (c)(2) of this section.

V_i = Number of valves in subgroup i.

n = Number of subgroups.

(iv) The owner or operator shall maintain records specified in paragraphs (b)(4)(iv)(A) through (b)(4)(iv)(D) of this section.

(A) Which valves are assigned to each subgroup,

(B) Monitoring results and calculations made for each subgroup for each monitoring period,

(C) Which valves are reassigned, the last monitoring result prior to reassignment, and when they were reassigned, and

(D) The results of the semiannual overall performance calculation required in paragraph (b)(4)(iii) of this section.

(v) The owner or operator shall notify the Administrator no later than 30 days prior to the beginning of the next monitoring period of the decision to subgroup valves. The notification shall identify the participating process units and the number of valves assigned to each subgroup, if applicable, and may be included in the next Periodic Report.

(vi) The owner or operator shall submit in the periodic reports the information specified in paragraphs (b)(4)(vi)(A) and (b)(4)(vi)(B).

(A) Total number of valves in each subgroup, and

(B) Results of the semiannual overall performance calculation required by paragraph (b)(4)(iii) of this section.

(vii) To determine the monitoring frequency for each subgroup, the calculation procedures of paragraph (c)(2) of this section shall be used.

(viii) Except for the overall performance calculations required by paragraphs (b)(4)(i) and (iii) of this section, each subgroup shall be treated as if it were a process unit for the purposes of applying the provisions of this section.

(c) Percent leaking valves calculation—

(1) Calculation basis and procedures.

(i) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis and this shall be the basis used for comparison with the subgrouping criteria specified in paragraph (b)(4)(i) of this section.

(ii) The percent leaking valves for each monitoring period for each process unit or valve subgroup, as provided in paragraph (b)(4) of this section, shall be calculated using the following equation:

$$\%V_L = (V_L/V_T) \times 100 \quad [\text{Eq. 2}]$$

where:

$\%V_L$ = Percent leaking valves.

V_L = Number of valves found leaking, excluding nonrepairable valves, as provided in paragraph (c)(3) of this section, and including those valves found leaking pursuant to paragraphs (d)(2)(iii)(A) and (d)(2)(iii)(B) of this section.

V_T = The sum of the total number of valves monitored.

(2) *Calculation for monitoring frequency.* When determining monitoring frequency for each process unit or valve subgroup subject to monthly, quarterly, or semiannual monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last two monitoring periods. When determining monitoring frequency for each process unit or valve subgroup subject to annual or biennial (once every 2 years) monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last three monitoring periods.

(3) *Nonrepairable valves.*

(i) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with paragraph (c)(3)(ii) of this section. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking valves calculation in a previous period) up to a maximum of 1 percent of the total number of valves in regulated material service at a process unit or affected facility may be excluded from calculation of percent leaking valves for subsequent monitoring periods.

(ii) If the number of nonrepairable valves exceeds 1 percent of the total number of valves in regulated material service at a process unit or affected facility, the number of nonrepairable valves exceeding 1 percent of the total number of valves in regulated material service shall be included in the calculation of percent leaking valves.

(d) *Leak repair.*

(1) If a leak is determined pursuant to paragraph (b), (e)(1), or (e)(2) of this section, then the leak shall be repaired using the procedures in §63.1024, as applicable.

(2) After a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definition of repaired and first attempt at repair.

(i) The monitoring shall be conducted as specified in §63.1023(b) and (c) of this section, as appropriate, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by paragraph (b) of this section may be used to satisfy the requirements of this paragraph, if the timing of the monitoring period coincides with the time specified in this paragraph. Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph.

(iii) If a leak is detected by monitoring that is conducted pursuant to paragraph (d)(2) of this section, the owner or operator shall follow the provisions of paragraphs (d)(2)(iii)(A) and (d)(2)(iii)(B) of this section, to determine whether that valve must be counted as a leaking valve for purposes of paragraph (c)(1)(ii) of this section.

(A) If the owner or operator elected to use periodic monitoring required by paragraph (b) of this section to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve.

(B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by paragraph (b) of this section, to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(e) Special provisions for valves—

(1) *Unsafe-to-monitor valves.* Any valve that is designated, as described in §63.1022(c)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraphs (b) and (d)(2) of this section and the owner or operator shall monitor the valve according to the written plan specified in §63.1022(c)(4).

(2) *Difficult-to-monitor valves.* Any valve that is designated, as described in §63.1022(c)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (b) of this section and the owner or operator shall monitor the valve according to the written plan specified in §63.1022(c)(4).

(3) *Fewer than 250 valves.* Any equipment located at a plant site with fewer than 250 valves in regulated material service is exempt from the requirements for monthly monitoring specified in paragraph (b)(3)(i) of this section. Instead, the owner or operator shall monitor each valve in regulated material service for leaks once each quarter, as provided in paragraphs (e)(1) and (e)(2) of this section.

§63.1026 Pumps in light liquid service standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Leak detection.* Unless otherwise specified in §63.1021(b), §63.1036, §63.1037, or paragraph (e) of this section, the owner or operator shall monitor each pump to detect leaks and shall comply with all other provisions of this section.

(1) *Monitoring method and frequency.* The pumps shall be monitored monthly to detect leaks by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(2) *Instrument reading that defines a leak.* The instrument reading that defines a leak is specified in paragraphs (b)(2)(i) through (b)(2)(iii) of this section.

(i) 5,000 parts per million or greater for pumps handling polymerizing monomers;

(ii) 2,000 parts per million or greater for pumps in food/medical service; and

(iii) 1,000 parts per million or greater for all other pumps.

(3) *Leak repair exception.* For pumps to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.

(4) *Visual inspection.* Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) The owner or operator shall monitor the pump as specified in §63.1023(b) and, as applicable, §63.1023(c). If the instrument reading indicates a leak as specified in paragraph (b)(2) of this section, a

leak is detected and it shall be repaired using the procedures in §63.1024, except as specified in paragraph (b)(3) of this section; or

(ii) The owner or operator shall eliminate the visual indications of liquids dripping.

(c) *Percent leaking pumps calculation.*

(1) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking pumps on a process unit basis or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis.

(2) If, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of §63.1035.

(3) The number of pumps at a process unit or affected facility shall be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit or affected facility within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(4) Percent leaking pumps shall be determined by the following equation:

$$\%P_L = \left((P_L - P_S) / (P_T - P_S) \right) \times 100 \quad [Eq. 3]$$

Where:

$\%P_L$ = Percent leaking pumps

P_L = Number of pumps found leaking as determined through monthly monitoring as required in paragraph (b)(1) of this section. Do not include results from inspection of unsafe-to-monitor pumps pursuant to paragraph (e)(6) of this section.

P_S = Number of pumps leaking within 1 month of start-up during the current monitoring period.

P_T = Total pumps in regulated material service, including those meeting the criteria in paragraphs (e)(1), (e)(2), (e)(3), and (e)(6) of this section.

(d) *Leak repair.* If a leak is detected pursuant to paragraph (b) of this section, then the leak shall be repaired using the procedures in §63.1024, as applicable, unless otherwise specified in paragraph (b)(5) of this section for leaks identified by visual indications of liquids dripping.

(e) *Special provisions for pumps—*

(1) *Dual mechanical seal pumps.* Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (b) of this section, provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(viii) of this section are met.

(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. The owner or operator shall keep records at the plant of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. This record must be available for review by an inspector.

(ii) Each dual mechanical seal system shall meet the requirements specified in paragraph (e)(1)(ii)(A), (e)(1)(ii)(B), or (e)(1)(ii)(C) of this section.

- (A) Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or
 - (B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of either §63.1034 or §63.1021(b) of this part; or
 - (C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.
- (iii) The barrier fluid is not in light liquid service.
- (iv) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
- (v) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in paragraphs (e)(1)(v)(A) or (e)(1)(v)(B) of this section prior to the next required inspection.
- (A) The owner or operator shall monitor the pump as specified in §63.1023(b) and, as applicable, §63.1023 (c), to determine if there is a leak of regulated material in the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected and it shall be repaired using the procedures in §63.1024; or
 - (B) The owner or operator shall eliminate the visual indications of liquids dripping.
- (vi) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph (e)(1)(i) of this section, or if based on the criteria established in paragraph (e)(1)(i) of this section the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.
- (vii) Each sensor as described in paragraph (e)(1)(iv) of this section is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.
- (viii) When a leak is detected pursuant to paragraph (e)(1)(vi) of this section, it shall be repaired as specified in §63.1024.
- (2) *No external shaft.* Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of paragraph (b) of this section.
- (3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any pump that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage from the pump to a control device meeting the requirements of §63.1034 of this part or §63.1021(b) is exempt from the requirements of paragraph (b) of this section.
- (4) *Unmanned plant site.* Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(4) and (e)(1)(v) of this section, and the daily requirements of paragraph (e)(1)(vii) of this section, provided that each pump is visually inspected as often as practical and at least monthly.
- (5) *90 percent exemption.* If more than 90 percent of the pumps at a process unit or affected facility meet the criteria in either paragraph (e)(1) or (e)(2) of this section, the process unit or affected facility is exempt from the percent leaking calculation in paragraph (c) of this section.

(6) *Unsafe-to-monitor pumps.* Any pump that is designated, as described in §63.1022(c)(1), as an unsafe-to-monitor pump is exempt from the requirements of paragraph (b) of this section, the monitoring and inspection requirements of paragraphs (e)(1)(v) through (viii) of this section, and the owner or operator shall monitor and inspect the pump according to the written plan specified in §63.1022(c)(4).

§63.1027 Connectors in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule.* The owner or operator shall monitor all connectors in each process unit initially for leaks by the later of either 12 months after the compliance date as specified in a referencing subpart or 12 months after initial startup. If all connectors in each process unit have been monitored for leaks prior to the compliance date specified in the referencing subpart, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) *Leak detection.* Except as allowed in §63.1021(b), §63.1036, §63.1037, or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) *Monitoring method.* The connectors shall be monitored to detect leaks by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(2) *Instrument reading that defines a leak.* If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

(3) *Monitoring periods.* The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (b)(3)(iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (b)(3)(v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (b)(3)(iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this section.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4 year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of

monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent leaking connectors of the total monitored connectors.

(C) If the percent leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraph (b)(3)(i) through (b)(3)(iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) *Percent leaking connectors calculation.* For use in determining the monitoring frequency, as specified in paragraphs (a) and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using equation number 4.

$$\%C_L = C_L/C_t \times 100 \quad [\text{Eq. 4}]$$

Where:

$\%C_L$ = Percent leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b)(3)(i) through (b)(3)(iii) of this section.

C_L = Number of connectors measured at 500 parts per million or greater, by the method specified in §63.1023(b).

C_t = Total number of monitored connectors in the process unit or affected facility.

(d) *Leak repair.* If a leak is detected pursuant to paragraphs (a) and (b) of this section, then the leak shall be repaired using the procedures in §63.1024, as applicable.

(e) *Special provisions for connectors—*

(1) *Unsafe-to-monitor connectors.* Any connector that is designated, as described in §63.1022(c)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (a) and (b) of this section and the owner or operator shall monitor according to the written plan specified in §63.1022(c)(4).

(2) *Inaccessible, ceramic, or ceramic-lined connectors.*

(i) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this section, from the leak repair requirements of paragraph (d) of this section, and from the recordkeeping and reporting requirements of §§63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in paragraphs (e)(2)(i)(A) through (e)(2)(i)(F) of this section, as applicable.

(A) Buried;

(B) Insulated in a manner that prevents access to the connector by a monitor probe;

(C) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(D) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground.

(E) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold;

(F) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(ii) If any inaccessible, ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

§63.1028 Agitators in gas and vapor service and in light liquid service standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) [Reserved]

(c) *Leak detection—*

(1) *Monitoring method.* Each agitator seal shall be monitored monthly to detect leaks by the methods specified in §63.1023(b) and, as applicable, §63.1023(c), except as provided in §63.1021(b), §63.1036, §63.1037, or paragraph (e) of this section.

(2) *Instrument reading that defines a leak.* If an instrument reading equivalent of 10,000 parts per million or greater is measured, a leak is detected.

(3) *Visual inspection.*

(i) Each agitator seal shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The owner or operator shall document that the inspection was conducted and the date of the inspection.

(ii) If there are indications of liquids dripping from the agitator seal, the owner or operator shall follow the procedures specified in paragraphs (c)(3)(ii)(A) or (c)(3)(ii)(B) of this section prior to the next required inspection.

(A) The owner or operator shall monitor the agitator seal as specified in §63.1023(b) and, as applicable, §63.1023(c), to determine if there is a leak of regulated material. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected, and it shall be repaired according to paragraph (d) of this section; or

(B) The owner or operator shall eliminate the indications of liquids dripping from the agitator seal.

(d) *Leak repair.* If a leak is detected, then the leak shall be repaired using the procedures in §63.1024.

(e) *Special provisions for agitators—*

(1) *Dual mechanical seal.* Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (c) of this section, provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(vi) of this section are met.

(i) Each dual mechanical seal system shall meet the applicable requirements specified in paragraphs (e)(1)(i)(A), (e)(1)(i)(B), or (e)(1)(i)(C) of this section.

- (A) Operated with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or
 - (B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either §63.1034 or §63.1021(b); or
 - (C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.
- (ii) The barrier fluid is not in light liquid service.
- (iii) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
- (iv) Each agitator seal is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in paragraphs (e)(1)(iv)(A) or (e)(1)(iv)(B) of this section prior to the next required inspection.
- (A) The owner or operator shall monitor the agitator seal as specified in §63.1023(b) and, as applicable, §63.1023(c), to determine the presence of regulated material in the barrier fluid. If an instrument reading equivalent to or greater than 10,000 ppm is measured, a leak is detected and it shall be repaired using the procedures in §63.1024, or
 - (B) The owner or operator shall eliminate the visual indications of liquids dripping.
- (v) Each sensor as described in paragraph (e)(1)(iii) of this section is observed daily or is equipped with an alarm unless the agitator seal is located within the boundary of an unmanned plant site.
- (vi) The owner or operator of each dual mechanical seal system shall meet the requirements specified in paragraphs (e)(1)(vi)(A) and (e)(1)(vi)(B).
- (A) The owner or operator shall determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both and applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the criteria, or if, based on the criteria the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected and shall be repaired pursuant to §63.1024, as applicable.
 - (B) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.
- (2) *No external shaft.* Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from paragraph (c) of this section.
- (3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any agitator that is routed to a process or fuel gas system that captures and transports leakage from the agitator to a control device meeting the requirements of either §63.1034 or §63.1021(b) is exempt from the requirements of paragraph (c) of this section.
- (4) *Unmanned plant site.* Any agitator that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (c)(3) and (e)(1)(iv) of this section, and the daily requirements of paragraph (e)(1)(v) of this section, provided that each agitator is visually inspected as often as practical and at least monthly.

(5) *Difficult-to-monitor agitator seals.* Any agitator seal that is designated, as described in §63.1022(c)(2), as a difficult-to-monitor agitator seal is exempt from the requirements of paragraph (c) of this section and the owner or operator shall monitor the agitator seal according to the written plan specified in §63.1022(c)(4).

(6) *Equipment obstructions.* Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of paragraph (c) of this section.

(7) *Unsafe-to-monitor agitator seals.* Any agitator seal that is designated, as described in §63.1022(c)(1), as an unsafe-to-monitor agitator seal is exempt from the requirements of paragraph (c) of this section and the owner or operator of the agitator seal monitors the agitator seal according to the written plan specified in §63.1022(c)(4).

§63.1029 Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Leak detection—*

(1) *Monitoring method.* Unless otherwise specified in §63.1021(b), §63.1036, or §63.1037, the owner or operator shall comply with paragraphs (b)(1) and (b)(2) of this section. Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems shall be monitored within 5 calendar days by the method specified in §63.1023(b) and, as applicable, §63.1023(c), if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in paragraph (c) of this section.

(2) *Instrument reading that defines a leak.* If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for pumps in food and medical service, or 2,000 parts per million or greater for all other pumps (including pumps in food/medical service), or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured pursuant to paragraph (b)(1) of this section, a leak is detected and shall be repaired pursuant to §63.1024, as applicable.

(c) *Leak repair.* For equipment identified in paragraph (b) of this section that is not monitored by the method specified in §63.1023(b) and, as applicable, §63.1023(c), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

§63.1030 Pressure relief devices in gas and vapor service standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Compliance standard.* Except during pressure releases as provided for in paragraph (c) of this section, or as otherwise specified in §§63.1036, 63.1037, or paragraphs (d) and (e) of this section, each pressure relief device in gas and vapor service shall be operated with an instrument reading of less than 500 parts per million as measured by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(c) *Pressure relief requirements.*

(1) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release, except as provided in §63.1024(d).

(2) The pressure relief device shall be monitored no later than five calendar days after the pressure to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(3) The owner or operator shall record the dates and results of the monitoring required by paragraph (c)(2) of this section following a pressure release including the background level measured and the maximum instrument reading measured during the monitoring.

(d) *Pressure relief devices routed to a process or fuel gas system or equipped with a closed vent system and control device.* Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage from the pressure relief device to a control device meeting the requirements of §63.1034 is exempt from the requirements of paragraphs (b) and (c) of this section.

(e) *Rupture disk exemption.* Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (b) and (c) of this section provided the owner or operator installs a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release but no later than 5 calendar days after each pressure release, except as provided in §63.1024(d).

§63.1031 Compressors standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Seal system standard.* Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in §§63.1021(b), 63.1036, 63.1037, and paragraphs (e) and (f) of this section. Each compressor seal system shall meet the applicable requirements specified in paragraph (b)(1), (b)(2), or (b)(3) of this section.

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure at all times (except during periods of startup, shutdown, or malfunction); or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either §63.1034 or §63.1021(b); or

(3) Equipped with a closed-loop system that purges the barrier fluid directly into a process stream.

(c) *Barrier fluid system.* The barrier fluid shall not be in light liquid service. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. Each sensor shall be observed daily or shall be equipped with an alarm unless the compressor is located within the boundary of an unmanned plant site.

(d) *Failure criterion and leak detection.*

(1) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion, a leak is detected and shall be repaired pursuant to §63.1024, as applicable.

(2) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.

(e) *Routed to a process or fuel gas system or equipped with a closed vent system.* A compressor is exempt from the requirements of paragraphs (b) through (d) of this section if it is equipped with a system to capture and transport leakage from the compressor drive shaft seal to a process or a fuel gas system or to a closed vent system that

captures and transports leakage from the compressor to a control device meeting the requirements of either §63.1034 or §63.1021(b).

(f) *Alternative compressor standard.*

(1) Any compressor that is designated, as described in §63.1022(e), as operating with an instrument reading of less than 500 parts per million above background shall operate at all times with an instrument reading of less than 500 parts per million. A compressor so designated is exempt from the requirements of paragraphs (b) through (d) of this section if the compressor is demonstrated, initially upon designation, annually, and at other times requested by the Administrator to be operating with an instrument reading of less than 500 parts per million above background, as measured by the method specified in §63.1023(b) and, as applicable, §63.1023(c).

(2) The owner or operator shall record the dates and results of each compliance test including the background level measured and the maximum instrument reading measured during each compliance test.

§63.1032 Sampling connection systems standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) *Equipment requirement.* Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system, except as provided in §§63.1021(b), 63.1036, 63.1037, or paragraph (d) of this section. Gases displaced during filling of the sample container are not required to be collected or captured.

(c) *Equipment design and operation.* Each closed-purge, closed-loop, or closed vent system as required in paragraph (b) of this section shall meet the applicable requirements specified in paragraphs (c)(1) through (c)(5) of this section.

(1) The system shall return the purged process fluid directly to a process line or to a fuel gas system that meets the requirements of either §63.1034 or §63.1021(b); or

(2) [Reserved]

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that meets the requirements of either §63.1034 or §63.1021(b); or

(4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (c)(4)(i), (c)(4)(ii), or (c)(4)(iii) of this section.

(i) A waste management unit as defined in 40 CFR 63.111 or subpart G, if the waste management unit is subject to and operating in compliance with the provisions of 40 CFR part 63, subpart G, applicable to group 1 wastewater streams. If the purged process fluid does not contain any regulated material listed in Table 9 of 40 CFR part 63, subpart G, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR part 63, subpart G, applicable to group 1 wastewater streams provided the facility has a National Pollution Discharge Elimination System (NPDES) permit or sends the wastewater to an NPDES-permitted facility.

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR parts 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(5) Containers that are part of a closed purge system must be covered or closed when not being filled or emptied.

(d) *In-situ sampling systems.* In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (b) and (c) of this section.

§63.1033 Open-ended valves or lines standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance date specified in the referencing subpart.

(b) *Equipment and operational requirements.*

(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §§63.1021(b), 63.1036, 63.1037, and paragraphs (c) and (d) of this section. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of paragraphs (b)(2) and (b)(3) of this section also apply.

(2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (b)(1) of this section at all other times.

(c) *Emergency shutdown exemption.* Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from the requirements of paragraph (b) of this section.

(d) *Polymerizing materials exemption.* Open-ended valves or lines containing materials that would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraph (b) of this section are exempt from the requirements of paragraph (b) of this section.

§63.1034 Closed vent systems and control devices; or emissions routed to a fuel gas system or process standards.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the compliance date specified in the referencing subpart.

(b) *Compliance standard.*

(1) Owners or operators routing emissions from equipment leaks to a fuel gas system or process shall comply with the provisions of subpart SS of this part, except as provided in §63.1002(b).

(2) Owners or operators of closed vent systems and control devices used to comply with the provisions of this subpart shall comply with the provisions of subpart SS of this part and (b)(2)(i) through (b)(2)(iii) of this section, except as provided in §63.1002(b).

(i) Nonflare control devices shall be designed and operated to reduce emissions of regulated material vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. The 20 parts per million by volume standard is not applicable to the provisions of §63.1016.

(ii) Enclosed combustion devices shall be designed and operated to reduce emissions of regulated material vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C (1400 °F).

(iii) Flares used to comply with the provisions of this subpart shall comply with the requirements of subpart SS of this part.

§63.1035 Quality improvement program for pumps.

(a) *Criteria.* If, on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or affected facility (or plant site) or three pumps in a process unit or affected facility (or plant site) leak, the owner or operator shall comply with the requirements specified in paragraphs (a)(1) and (a)(2) of this section.

(1) Pumps that are in food and medical service or in polymerizing monomer service shall comply with all requirements except for those specified in paragraph (d)(8) of this section.

(2) Pumps that are not in food and medical or polymerizing monomer service shall comply with all of the requirements of this section.

(b) *Exiting the QIP.* The owner or operator shall comply with the requirements of this section until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated as a 6-month rolling average, in the process unit or affected facility (or plant site). Once the performance level is achieved, the owner or operator shall comply with the requirements in §63.1026.

(c) *Resumption of QIP.* If, in a subsequent monitoring period, the process unit or affected facility (or plant site) has greater than either 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the owner or operator shall resume the quality improvement program starting at performance trials.

(d) *QIP requirements.* The quality improvement program shall meet the requirements specified in paragraphs (d)(1) through (d)(8) of this section.

(1) The owner or operator shall comply with the requirements in §63.1026.

(2) *Data collection.* The owner or operator shall collect the data specified in paragraphs (d)(2)(i) through (d)(2)(v) of this section and maintain records for each pump in each process unit or affected facility (or plant site) subject to the quality improvement program. The data may be collected and the records may be maintained on a process unit, affected facility, or plant site basis.

(i) Pump type (e.g., piston, horizontal or vertical centrifugal, gear, bellows); pump manufacturer; seal type and manufacturer; pump design (e.g., external shaft, flanged body); materials of construction; if applicable, barrier fluid or packing material; and year installed.

(ii) Service characteristics of the stream such as discharge pressure, temperature, flow rate, corrosivity, and annual operating hours.

(iii) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if appropriate, instrument model number, and date of the observation.

(iv) If a leak is detected, the repair methods used and the instrument readings after repair.

(v) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units or affected facilities, a description of any maintenance or quality assurance programs used in the process unit or affected facility that are intended to improve emission performance.

(3) The owner or operator shall continue to collect data on the pumps as long as the process unit or affected facility (or plant site) remains in the quality improvement program.

(4) *Pump or pump seal inspection.* The owner or operator shall inspect all pumps or pump seals that exhibited frequent seal failures and were removed from the process unit or affected facility due to leaks. The inspection shall determine the probable cause of the pump seal failure or of the pump leak and shall include recommendations, as appropriate, for design changes or changes in specifications to reduce leak potential.

(5)(i) *Data analysis.* The owner or operator shall analyze the data collected to comply with the requirements of paragraph (d)(2) of this section to determine the services, operating or maintenance practices, and pump or

pump seal designs or technologies that have poorer than average emission performance and those that have better than average emission performance. The analysis shall determine if specific trouble areas can be identified on the basis of service, operating conditions or maintenance practices, equipment design, or other process-specific factors.

(ii) The analysis shall also be used to determine if there are superior performing pump or pump seal technologies that are applicable to the service(s), operating conditions, or pump or pump seal designs associated with poorer than average emission performance. A superior performing pump or pump seal technology is one with a leak frequency of less than 10 percent for specific applications in the process unit, affected facility, or plant site. A candidate superior performing pump or pump seal technology is one demonstrated or reported in the available literature or through a group study as having low emission performance and as being capable of achieving less than 10 percent leaking pumps in the process unit or affected facility (or plant site).

(iii) The analysis shall include consideration of the information specified in paragraphs (d)(5)(iii)(A) through (d)(5)(iii)(C) of this section.

(A) The data obtained from the inspections of pumps and pump seals removed from the process unit or affected facility due to leaks;

(B) Information from the available literature and from the experience of other plant sites that will identify pump designs or technologies and operating conditions associated with low emission performance for specific services; and

(C) Information on limitations on the service conditions for the pump seal technology operating conditions as well as information on maintenance procedures to ensure continued low emission performance.

(iv) The data analysis may be conducted through an inter- or intra-company program (or through some combination of the two approaches) and may be for a single process unit, a plant site, a company, or a group of process units.

(v) The first analysis of the data shall be completed no later than 18 months after the start of the quality improvement program. The first analysis shall be performed using data collected for a minimum of 6 months. An analysis of the data shall be done each year the process unit or affected facility is in the quality improvement program.

(6) *Trial evaluation program.* A trial evaluation program shall be conducted at each plant site for which the data analysis does not identify use of superior performing pump seal technology or pumps that can be applied to the areas identified as having poorer than average performance, except as provided in paragraph (d)(6)(v) of this section. The trial program shall be used to evaluate the feasibility of using in the process unit or affected facility (or plant site) the pump designs or seal technologies, and operating and maintenance practices that have been identified by others as having low emission performance.

(i) The trial evaluation program shall include on-line trials of pump seal technologies or pump designs and operating and maintenance practices that have been identified in the available literature or in analysis by others as having the ability to perform with leak rates below 10 percent in similar services, as having low probability of failure, or as having no external actuating mechanism in contact with the process fluid. If any of the candidate superior performing pump seal technologies or pumps is not included in the performance trials, the reasons for rejecting specific technologies from consideration shall be documented as required in paragraph (e)(3)(ii) of this section.

(ii) The number of pump seal technologies or pumps in the trial evaluation program shall be the lesser of 1 percent or two pumps for programs involving single process units or affected facilities and the lesser of 1 percent or five pumps for programs involving a plant site or groups of process units or affected facilities. The minimum number of pumps or pump seal technologies in a trial program shall be one.

(iii) The trial evaluation program shall specify and include documentation of the information specified in paragraphs (d)(6)(iii)(A) through (d)(6)(iii)(D) of this section.

(A) The candidate superior performing pump seal designs or technologies to be evaluated, the stages for evaluating the identified candidate pump designs or pump seal technologies, including the time period necessary to test the applicability;

(B) The frequency of monitoring or inspection of the equipment;

(C) The range of operating conditions over which the component will be evaluated; and

(D) Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial pump seal technologies or pumps.

(iv) The performance trials shall initially be conducted, at least, for a 6-month period beginning not later than 18 months after the start of the quality improvement program. No later than 24 months after the start of the quality improvement program, the owner or operator shall have identified pump seal technologies or pump designs that, combined with appropriate process, operating, and maintenance practices, operate with low emission performance for specific applications in the process unit or affected facility. The owner or operator shall continue to conduct performance trials as long as no superior performing design or technology has been identified, except as provided in paragraph (d)(6)(vi) of this section. The initial list of superior emission performance pump designs or pump seal technologies shall be amended in the future, as appropriate, as additional information and experience are obtained.

(v) Any plant site with fewer than 400 valves and owned by a corporation with fewer than 100 employees shall be exempt from trial evaluations of pump seals or pump designs. Plant sites exempt from the trial evaluations of pumps shall begin the pump seal or pump replacement program at the start of the fourth year of the quality improvement program.

(vi) An owner or operator who has conducted performance trials on all alternative superior emission performance technologies suitable for the required applications in the process unit or affected facility may stop conducting performance trials provided that a superior performing design or technology has been demonstrated or there are no technically feasible alternative superior technologies remaining. The owner or operator shall prepare an engineering evaluation documenting the physical, chemical, or engineering basis for the judgment that the superior emission performance technology is technically infeasible or demonstrating that it would not reduce emissions.

(7) *Quality assurance program.* Each owner or operator shall prepare and implement a pump quality assurance program that details purchasing specifications and maintenance procedures for all pumps and pump seals in the process unit or affected facility. The quality assurance program may establish any number of categories, or classes, of pumps as needed to distinguish among operating conditions and services associated with poorer than average emission performance as well as those associated with better than average emission performance. The quality assurance program shall be developed considering the findings of the data analysis required under paragraph (d)(5) of this section; and, if applicable, the findings of the trial evaluation required in paragraph (d)(6) of this section; and the operating conditions in the process unit or affected facility. The quality assurance program shall be updated each year as long as the process unit or affected facility has the greater of either 10 percent or more leaking pumps or has three leaking pumps.

(i) The quality assurance program shall meet the requirements specified in paragraphs (d)(7)(i)(A) through (d)(7)(i)(D) of this section.

(A) Establish minimum design standards for each category of pumps or pump seal technology. The design standards shall specify known critical parameters such as tolerance, manufacturer, materials of construction, previous usage, or other applicable identified critical parameters;

(B) Require that all equipment orders specify the design standard (or minimum tolerances) for the pump or the pump seal;

(C) Provide for an audit procedure for quality control of purchased equipment to ensure conformance with purchase specifications. The audit program may be conducted by the owner or operator of the plant site or process unit or affected facility, or by a designated representative; and

(D) Detail off-line pump maintenance and repair procedures. These procedures shall include provisions to ensure that rebuilt or refurbished pumps and pump seals will meet the design specifications for the pump category and will operate so that emissions are minimized.

(ii) The quality assurance program shall be established no later than the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees; and no later than the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees.

(8) *Pump or pump seal replacement.* Three years after the start of the quality improvement program for plant sites with 400 or more valves or 100 or more employees and at the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees, the owner or operator shall replace, as described in paragraphs (d)(8)(i) and (d)(8)(ii) of this section, the pumps or pump seals that are not superior emission performance technology with pumps or pump seals that have been identified as superior emission performance technology and that comply with the quality assurance standards for the pump category. Superior emission performance technology is that category or design of pumps or pump seals with emission performance that when combined with appropriate process, operating, and maintenance practices, will result in less than 10 percent leaking pumps for specific applications in the process unit, affected facility, or plant site. Superior emission performance technology includes material or design changes to the existing pump, pump seal, seal support system, installation of multiple mechanical seals or equivalent, or pump replacement.

(i) Pumps or pump seals shall be replaced at the rate of 20 percent per year based on the total number of pumps in light liquid service. The calculated value shall be rounded to the nearest nonzero integer value. The minimum number of pumps or pump seals shall be one. Pump replacement shall continue until all pumps subject to the requirements of §63.1026 are pumps determined to be superior performance technology.

(ii) The owner or operator may delay replacement of pump seals or pumps with superior technology until the next planned process unit or affected facility shutdown, provided the number of pump seals and pumps replaced is equivalent to the 20 percent or greater annual replacement rate.

(iii) The pumps shall be maintained as specified in the quality assurance program.

(e) *QIP recordkeeping.* In addition to the records required by paragraph (d)(2) of this section, the owner or operator shall maintain records for the period of the quality improvement program for the process unit or affected facility as specified in paragraphs (e)(1) through (e)(6) of this section.

(1) When using a pump quality improvement program as specified in this section, record the information specified in paragraphs (e)(1)(i) through (e)(1)(iii) of this section.

- (i) The rolling average percent leaking pumps.
 - (ii) Documentation of all inspections conducted under the requirements of paragraph (d)(4) of this section, and any recommendations for design or specification changes to reduce leak frequency.
 - (iii) The beginning and ending dates while meeting the requirements of paragraph (d) of this section.
- (2) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair.
- (3) Records of all analyses required in paragraph (d) of this section. The records will include the information specified in paragraphs (e)(3)(i) through (e)(3)(iv) of this section.
- (i) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices.
 - (ii) The reasons for rejecting specific candidate superior emission performing pump technology from performance trials.
 - (iii) The list of candidate superior emission performing valve or pump technologies, and documentation of the performance trial program items required under paragraph (d)(6)(iii) of this section.
 - (iv) The beginning date and duration of performance trials of each candidate superior emission performing technology.
- (4) All records documenting the quality assurance program for pumps as specified in paragraph (d)(7) of this section, including records indicating that all pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance.
- (5) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in paragraph (d)(8) of this section.
- (6) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services.

§63.1036 Alternative means of emission limitation: Batch processes.

- (a) *General requirement.* As an alternative to complying with the requirements of §§63.1025 through 63.1033 and §63.1035, an owner or operator of a batch process that operates in regulated material service during the calendar year may comply with one of the standards specified in paragraphs (b) and (c) of this section, or the owner or operator may petition for approval of an alternative standard under the provisions of §63.1021(b). The alternative standards of this section provide the options of pressure testing or monitoring the equipment for leaks. The owner or operator may switch among the alternatives provided the change is documented as specified in paragraph (b)(7) of this section.
- (b) *Pressure testing of the batch equipment.* The following requirements shall be met if an owner or operator elects to use pressure testing of batch product-process equipment to demonstrate compliance with this subpart.
- (1) *Reconfiguration.* Each time equipment is reconfigured for production of a different product or intermediate, the batch product-process equipment train shall be pressure-tested for leaks before regulated material is first fed to the equipment and the equipment is placed in regulated material service.
 - (i) When the batch product-process equipment train is reconfigured to produce a different product, pressure testing is required only for the new or disturbed equipment.
 - (ii) Each batch product process that operates in regulated material service during a calendar year shall be pressure-tested at least once during that calendar year.

(iii) Pressure testing is not required for routine seal breaks, such as changing hoses or filters, that are not part of the reconfiguration to produce a different product or intermediate.

(2) *Testing procedures.* The batch product process equipment shall be tested either using the procedures specified in paragraph (b)(5) of this section for pressure vacuum loss or with a liquid using the procedures specified in paragraph (b)(6) of this section.

(3) *Leak detection.*

(i) For pressure or vacuum tests using a gas, a leak is detected if the rate of change in pressure is greater than 6.9 kilopascals (1 pound per square inch gauge) in 1 hour or if there is visible, audible, or olfactory evidence of fluid loss.

(ii) For pressure tests using a liquid, a leak is detected if there are indications of liquids dripping or if there is other evidence of fluid loss.

(4) *Leak repair.*

(i) If a leak is detected, it shall be repaired and the batch product-process equipment shall be retested before start-up of the process.

(ii) If a batch product-process fails the retest (the second of two consecutive pressure tests), it shall be repaired as soon as practical, but not later than 30 calendar days after the second pressure test except as specified in paragraph (e) of this section.

(5) *Gas pressure test procedure for pressure or vacuum loss.* The procedures specified in paragraphs (b)(5)(i) through (b)(5)(v) of this section shall be used to pressure test batch product-process equipment for pressure or vacuum loss to demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section.

(i) The batch product-process equipment train shall be pressurized with a gas to a pressure less than the set pressure of any safety relief devices or valves or to a pressure slightly above the operating pressure of the equipment, or alternatively the equipment shall be placed under a vacuum.

(ii) Once the test pressure is obtained, the gas source or vacuum source shall be shut off.

(iii) The test shall continue for not less than 15 minutes unless it can be determined in a shorter period of time that the allowable rate of pressure drop or of pressure rise was exceeded. The pressure in the batch product-process equipment shall be measured after the gas or vacuum source is shut off and at the end of the test period. The rate of change in pressure in the batch product-process equipment shall be calculated using the following equation:

$$\Delta(P/t) = (|P_f - P_i|)/(t_f - t_i) \quad [Eq. 5]$$

Where:

$\Delta(P/t)$ = Change in pressure, pounds per square inch gauge per hour.

P_f = Final pressure, pounds per square inch gauge.

P_i = Initial pressure, pounds per square inch gauge.

$t_f - t_i$ = Elapsed time, hours.

(iv) The pressure shall be measured using a pressure measurement device (gauge, manometer, or equivalent) that has a precision of ± 2.5 millimeter mercury (0.10 inch of mercury) in the range of test pressure and is capable of measuring pressures up to the relief set pressure of the pressure relief device. If such a pressure measurement device is not reasonably available, the owner or operator shall use a

pressure measurement device with a precision of at least ± 10 percent of the test pressure of the equipment and shall extend the duration of the test for the time necessary to detect a pressure loss or rise that equals a rate of 1 pound per square inch gauge per hour (7 kilopascals per hour).

(v) An alternative procedure may be used for leak testing the equipment if the owner or operator demonstrates the alternative procedure is capable of detecting a pressure loss or rise.

(6) *Pressure test procedure using test liquid.* The procedures specified in paragraphs (b)(6)(i) through (b)(6)(iv) of this section shall be used to pressure-test batch product-process equipment using a liquid to demonstrate compliance with the requirements of paragraph (b)(3)(ii) of this section.

(i) The batch product-process equipment train, or section of the equipment train, shall be filled with the test liquid (e.g., water, alcohol) until normal operating pressure is obtained. Once the equipment is filled, the liquid source shall be shut off.

(ii) The test shall be conducted for a period of at least 60 minutes, unless it can be determined in a shorter period of time that the test is a failure.

(iii) Each seal in the equipment being tested shall be inspected for indications of liquid dripping or other indications of fluid loss. If there are any indications of liquids dripping or of fluid loss, a leak is detected.

(iv) An alternative procedure may be used for leak testing the equipment, if the owner or operator demonstrates the alternative procedure is capable of detecting losses of fluid.

(7) *Pressure testing recordkeeping.* The owner or operator of a batch product process who elects to pressure test the batch product process equipment train to demonstrate compliance with this subpart shall maintain records of the information specified in paragraphs (b)(7)(i) through (b)(7)(v) of this section.

(i) The identification of each product, or product code, produced during the calendar year. It is not necessary to identify individual items of equipment in a batch product process equipment train.

(ii) Physical tagging of the equipment to identify that it is in regulated material service and subject to the provisions of this subpart is not required. Equipment in a batch product process subject to the provisions of this subpart may be identified on a plant site plan, in log entries, or by other appropriate methods.

(iii) The dates of each pressure test required in paragraph (b) of this section, the test pressure, and the pressure drop observed during the test.

(iv) Records of any visible, audible, or olfactory evidence of fluid loss.

(v) When a batch product process equipment train does not pass two consecutive pressure tests, the information specified in paragraphs (b)(7)(v)(A) through (b)(7)(v)(E) of this section shall be recorded in a log and kept for 2 years:

(A) The date of each pressure test and the date of each leak repair attempt.

(B) Repair methods applied in each attempt to repair the leak.

(C) The reason for the delay of repair.

(D) The expected date for delivery of the replacement equipment and the actual date of delivery of the replacement equipment; and

(E) The date of successful repair.

(c) *Equipment monitoring.* The following requirements shall be met if an owner or operator elects to monitor the equipment in a batch process to detect leaks by the method specified in §63.1023(b) and, as applicable, §63.1023(c), to demonstrate compliance with this subpart.

(1) The owner or operator shall comply with the requirements of §§63.1025 through 63.1035 as modified by paragraphs (c)(2) through (c)(4) of this section.

(2) The equipment shall be monitored for leaks by the method specified in §63.1023(b) and, as applicable, §63.1023(c), when the equipment is in regulated material service or is in use with any other detectable material.

(3) The equipment shall be monitored for leaks as specified in paragraphs (c)(3)(i) through (c)(3)(iv) of this section.

(i) Each time the equipment is reconfigured for the production of a new product, the reconfigured equipment shall be monitored for leaks within 30 days of start-up of the process. This initial monitoring of reconfigured equipment shall not be included in determining percent leaking equipment in the process unit or affected facility.

(ii) Connectors shall be monitored in accordance with the requirements in §63.1027.

(iii) Equipment other than connectors shall be monitored at the frequencies specified in table 1 to this subpart. The operating time shall be determined as the proportion of the year the batch product-process that is subject to the provisions of this subpart is operating.

(iv) The monitoring frequencies specified in paragraph (c)(3)(iii) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor anytime during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. For example, if the equipment is not operating during the scheduled monitoring period, the monitoring can be done during the next period when the process is operating.

(4) If a leak is detected, it shall be repaired as soon as practical but not later than 15 calendar days after it is detected, except as provided in paragraph (e) of this section.

(d) *Added equipment recordkeeping.*

(1) For batch product-process units or affected facilities that the owner or operator elects to monitor as provided under paragraph (c) of this section, the owner or operator shall prepare a list of equipment added to batch product process units or affected facilities since the last monitoring period required in paragraphs (c)(3)(ii) and (c)(3)(iii) of this section.

(2) Maintain records demonstrating the proportion of the time during the calendar year the equipment is in use in a batch process that is subject to the provisions of this subpart. Examples of suitable documentation are records of time in use for individual pieces of equipment or average time in use for the process unit or affected facility. These records are not required if the owner or operator does not adjust monitoring frequency by the time in use, as provided in paragraph (c)(3)(iii) of this section.

(3) Record and keep pursuant to the referencing subpart and this subpart, the date and results of the monitoring required in paragraph (c)(3)(i) of this section for equipment added to a batch product-process unit or affected facility since the last monitoring period required in paragraphs (c)(3)(ii) and (c)(3)(iii) of this section. If no leaking equipment is found during this monitoring, the owner or operator shall record that the inspection was performed. Records of the actual monitoring results are not required.

(e) *Delay of repair.* Delay of repair of equipment for which leaks have been detected is allowed if the replacement equipment is not available providing the conditions specified in paragraphs (e)(1) and (e)(2) of this section are met.

(1) Equipment supplies have been depleted and supplies had been sufficiently stocked before the supplies were depleted.

(2) The repair is made no later than 10 calendar days after delivery of the replacement equipment.

(f) *Periodic report contents.* For owners or operators electing to meet the requirements of paragraph (b) of this section, the Periodic Report to be filed pursuant to §63.1039(b) shall include the information listed in paragraphs (f)(1) through (f)(4) of this section for each process unit.

(1) Batch product process equipment train identification;

(2) The number of pressure tests conducted;

(3) The number of pressure tests where the equipment train failed the pressure test; and

(4) The facts that explain any delay of repairs.

§63.1037 Alternative means of emission limitation: Enclosed-vented process units or affected facilities.

(a) *Use of closed vent system and control device.* Process units or affected facilities or portions of process units at affected facilities enclosed in such a manner that all emissions from equipment leaks are vented through a closed vent system to a control device or routed to a fuel gas system or process meeting the requirements of §63.1034 are exempt from the requirements of §§63.1025 through 63.1033 and 63.1035. The enclosure shall be maintained under a negative pressure at all times while the process unit or affected facility is in operation to ensure that all emissions are routed to a control device.

(b) *Recordkeeping.* Owners and operators choosing to comply with the requirements of this section shall maintain the records specified in paragraphs (b)(1) through (b)(3) of this section.

(1) Identification of the process unit(s) or affected facilities and the regulated materials they handle.

(2) A schematic of the process unit or affected facility, enclosure, and closed vent system.

(3) A description of the system used to create a negative pressure in the enclosure to ensure that all emissions are routed to the control device.

§63.1038 Recordkeeping requirements.

(a) *Recordkeeping system.* An owner or operator of more than one regulated source subject to the provisions of this subpart may comply with the recordkeeping requirements for these regulated sources in one recordkeeping system. The recordkeeping system shall identify each record by regulated source and the type of program being implemented (e.g., quarterly monitoring, quality improvement) for each type of equipment. The records required by this subpart are summarized in paragraphs (b) and (c) of this section.

(b) *General equipment leak records.*

(1) As specified in §63.1022(a) and (b), the owner or operator shall keep general and specific equipment identification if the equipment is not physically tagged and the owner or operator is electing to identify the equipment subject to this subpart through written documentation such as a log or other designation.

(2) The owner or operator shall keep a written plan as specified in §63.1022(c)(4) for any equipment that is designated as unsafe- or difficult-to-monitor.

(3) The owner or operator shall maintain a record of the identity and an explanation as specified in §63.1022(d)(2) for any equipment that is designated as unsafe-to-repair.

(4) As specified in §63.1022(e), the owner or operator shall maintain the identity of compressors operating with an instrument reading of less than 500 parts per million.

(5) The owner or operator shall keep records associated with the determination that equipment is in heavy liquid service as specified in §63.1022(f).

(6) The owner or operator shall keep records for leaking equipment as specified in §63.1023(e)(2).

(7) The owner or operator shall keep records for leak repair as specified in §63.1024(f) and records for delay of repair as specified in §63.1024(d).

(c) *Specific equipment leak records.*

(1) For valves, the owner or operator shall maintain the records specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section.

(i) The monitoring schedule for each process unit as specified in §63.1025(b)(3)(vi).

(ii) The valve subgrouping records specified in §63.1025(b)(4)(iv), if applicable.

(2) For pumps, the owner or operator shall maintain the records specified in paragraphs (c)(2)(i) through (c)(2)(iii) of this section.

(i) Documentation of pump visual inspections as specified in §63.1026(b)(4).

(ii) Documentation of dual mechanical seal pump visual inspections as specified in §63.1026(e)(1)(v).

(iii) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes, as specified in §63.1026(e)(1)(i).

(3) For connectors, the owner or operator shall maintain the monitoring schedule for each process unit as specified in §63.1027(b)(3)(v).

(4) For agitators, the owner or operator shall maintain the following records:

(i) Documentation of agitator seal visual inspections as specified in §63.1028; and

(ii) For the criteria as to the presence and frequency of drips for agitators, the owner or operator shall keep records of the design criteria and explanations and any changes and the reason for the changes, as specified in §63.1028(e)(1)(vi).

(5) For pressure relief devices in gas and vapor or light liquid service, the owner or operator shall keep records of the dates and results of monitoring following a pressure release, as specified in §63.1030(c)(3).

(6) For compressors, the owner or operator shall maintain the records specified in paragraphs (c)(6)(i) and (c)(6)(ii) of this section.

(i) For criteria as to failure of the seal system and/or the barrier fluid system, record the design criteria and explanations and any changes and the reason for the changes, as specified in §63.1031(d)(2).

(ii) For compressors operating under the alternative compressor standard, record the dates and results of each compliance test as specified in §63.1031(f)(2).

(7) For a pump QIP program, the owner or operator shall maintain the records specified in paragraphs (c)(7)(i) through (c)(7)(v) of this section.

(i) Individual pump records as specified in §63.1035(d)(2).

(ii) Trial evaluation program documentation as specified in §63.1035(d)(6)(iii).

(iii) Engineering evaluation documenting the basis for judgement that superior emission performance technology is not applicable as specified in §63.1035(d)(6)(vi).

(iv) Quality assurance program documentation as specified in §63.1035(d)(7).

(v) QIP records as specified in §63.1035(e).

(8) For process units complying with the batch process unit alternative, the owner or operator shall maintain the records specified in paragraphs (c)(8)(i) and (c)(8)(ii) of this section.

(i) Pressure test records as specified in §63.1036(b)(7).

(ii) Records for equipment added to the process unit as specified in §63.1036(d).

(9) For process units complying with the enclosed-vented process unit alternative, the owner or operator shall maintain the records for enclosed-vented process units as specified in §63.1037(b).

§63.1039 Reporting requirements.

(a) *Initial Compliance Status Report.* Each owner or operator shall submit an Initial Compliance Status Report according to the procedures in the referencing subpart. The notification shall include the information listed in paragraphs (a)(1) through (a)(3) of this section, as applicable.

(1) The notification shall provide the information listed in paragraphs (a)(1)(i) through (a)(1)(iv) of this section for each process unit or affected facility subject to the requirements of this subpart.

(i) Process unit or affected facility identification.

(ii) Number of each equipment type (e.g., valves, pumps) excluding equipment in vacuum service.

(iii) Method of compliance with the standard (e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”).

(iv) Planned schedule for requirements in §§63.1025 and 63.1026.

(2) The notification shall provide the information listed in paragraphs (a)(2)(i) and (a)(2)(ii) of this section for each process unit or affected facility subject to the requirements of §63.1036(b).

(i) Batch products or product codes subject to the provisions of this subpart, and

(ii) Planned schedule for pressure testing when equipment is configured for production of products subject to the provisions of this subpart.

(3) The notification shall provide the information listed in paragraphs (a)(3)(i) and (a)(3)(ii) of this section for each process unit or affected facility subject to the requirements in §63.1037.

(i) Process unit or affected facility identification.

(ii) A description of the system used to create a negative pressure in the enclosure and the control device used to comply with the requirements of §63.1034 of this part.

(b) *Periodic Reports.* The owner or operator shall report the information specified in paragraphs (b)(1) through (b)(8) of this section, as applicable, in the Periodic Report specified in the referencing subpart.

(1) For the equipment specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section, report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required by §63.1024, and for valves and connectors, identify the number of components that are determined by §63.1025(c)(3) to be nonreparable.

(i) Valves in gas and vapor service and in light liquid service pursuant to §63.1025(b) and (c).

(ii) Pumps in light liquid service pursuant to §63.1026(b) and (c).

- (iii) Connectors in gas and vapor service and in light liquid service pursuant to §63.1027(b) and (c).
- (iv) Agitators in gas and vapor service and in light liquid service pursuant to §63.1028(c).
- (v) Compressors pursuant to §63.1031(d).
- (2) Where any delay of repair is utilized pursuant to §63.1024(d), report that delay of repair has occurred and report the number of instances of delay of repair.
- (3) If applicable, report the valve subgrouping information specified in §63.1025(b)(4)(iv).
- (4) For pressure relief devices in gas and vapor service pursuant to §63.1030(b) and for compressors pursuant to §63.1031(f) that are to be operated at a leak detection instrument reading of less than 500 parts per million, report the results of all monitoring to show compliance conducted within the semiannual reporting period.
- (5) Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to §63.1025(b)(3)(i).
- (6) Report, if applicable, the initiation of a quality improvement program for pumps pursuant to §63.1035.
- (7) Where the alternative means of emissions limitation for batch processes is utilized, report the information listed in §63.1036(f).
- (8) Report the information listed in paragraph (a) of this section for the Initial Compliance Status Report for process units or affected facilities with later compliance dates. Report any revisions to items reported in an earlier Initial Compliance Status Report if the method of compliance has changed since the last report.

Table 1 to Subpart UU of Part 63—Batch Processes Monitoring Frequency For Equipment Other Than Connectors

Operating time (% of year)	Equivalent continuous process monitoring frequency time in use		
	Monthly	Quarterly	Semiannually
0 to <25%	Quarterly	Annually	Annually.
25 to <50%	Quarterly	Semiannually	Annually.
50 to <75%	Bimonthly	Three times	Semiannually.
75 to 100%	Monthly	Quarterly	Semiannually.